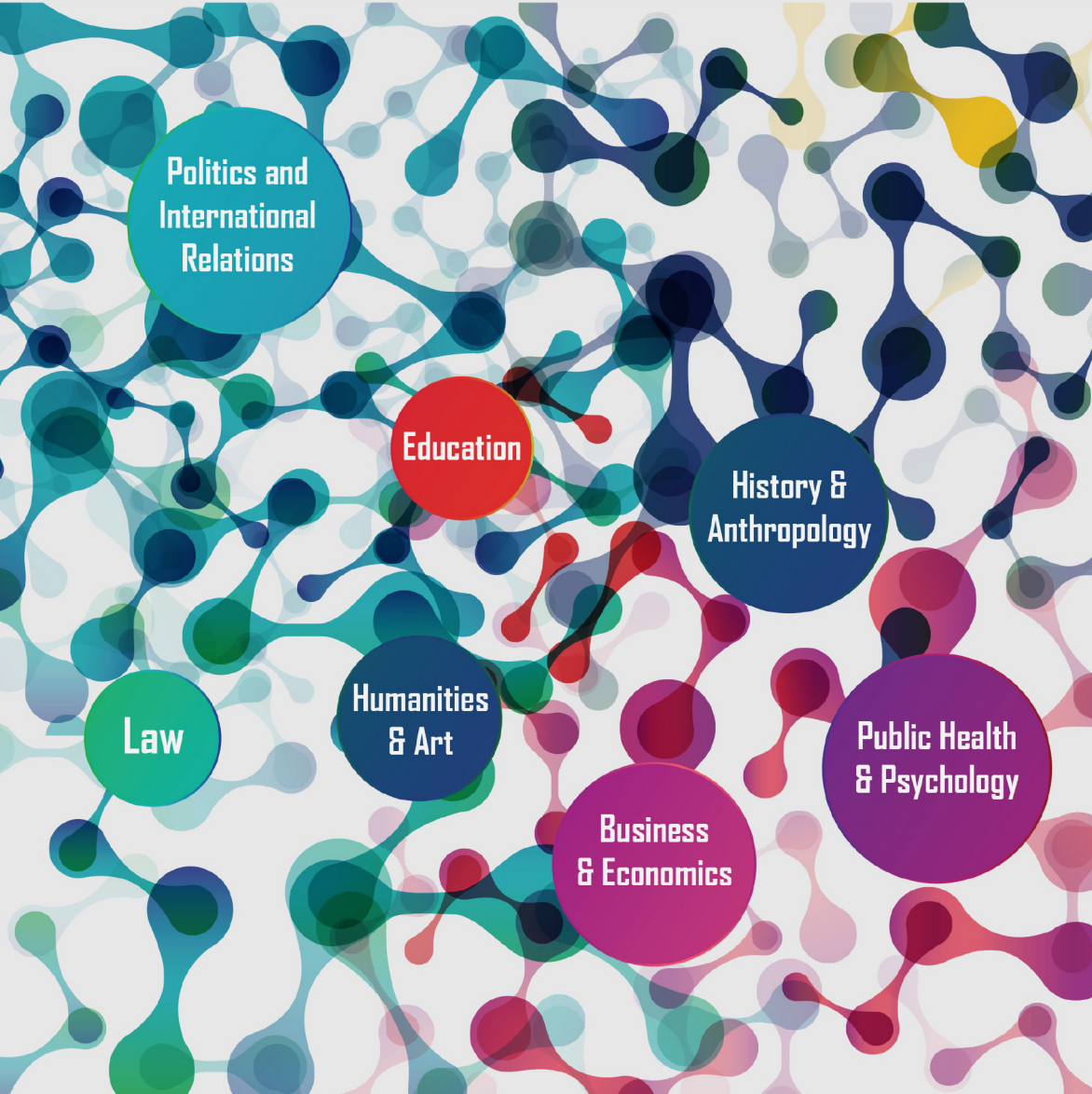


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The Role of the Caspian Energy Game in Central Asian History

Savas Genc
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Abstract

One significant geopolitical consequence of the demise of the Soviet Union was the rise of intense political and commercial competition for control over the vast energy resources of the newly independent and vulnerable states of the Caucasus and Central Asia. Following the collapse of Communism, the ex-Soviet republics of Central Asia, particularly Azerbaijan and Kazakhstan, have been trying to exploit their natural resources, since they consider oil to be the prime means of securing their economic and political independence. This article is an independent analysis of the main issues facing the oil and gas sector developments in the countries of the former Soviet Union gifted with major petroleum resources: Kazakhstan, Turkmenistan, Uzbekistan and Azerbaijan in Transcaucasia. Will Caspian oil redraw the global energy map? What is the importance of the Caspian oil for the world market? And what is Caspian energy potential in Central Asian history?

კასპიის ენერგო-თამაშის მნიშვნელობა ცენტრალური აზიის ისტორიაში

სავაშ გენც
სტამბოლის ფათიჰის უნივერსიტეტი

საბჭოთა კავშირის დაშლის ერთ-ერთი მთავარი გეოპოლიტიკური მნიშვნელობის შედეგი იყო კავკასიისა და ცენტრალური აზიის ახლად დამოუკიდებელ და დაუცველ სახელმწიფოებში, ენერგო რესურსების კონტროლზე პოლიტიკური და კომერციული კონკურენციის ზრდა. კომუნისტური წყობის რღვევის შემდეგ, ცენტრალური აზიის, ყოფილი საბჭოთა კავშირის ქვეყნები, განსაკუთრებით აზერბაიჯანი და ყაზახეთი, შეეცადნენ თავიანთი ენერგო რესურსები მაქსიმალურად გამოეყენებინათ, რამდენადაც ნავთობში ეკონომიკური და პოლიტიკური უსაფრთხოების გარანტიას ხედავდნენ. ნაშრომი წარმოადგენს დამოუკიდებელ კვლევას ყოფილი საბჭოთა კავშირის, ნავთობით მდიდარ ქვეყნებში გაზისა და ნავთობის სფეროში მიმდინარე მოვლენების განვითარების შესახებ: ყაზახეთი, თურქმენეთი, უზბეკეთი და აზერბაიჯანი. ძირითადი საკითხები, რასაც ნაშრომი განიხილავს არის თუ რა ცვლილებებს შეიტანს კასპიის ნავთობი გლობალურ ენერგო რუკაზე? რამდენად მნიშვნელოვანია კასპიის ნავთობი მსოფლიო ბაზრისთვის და რა პოტენციალი გააჩნია კასპიის ენერგო რესურსს ცენტრალური აზიის ისტორიაში?

The Central Asian-Caspian region maintains some of the world's richest energy resources. The collapse of the Soviet Union resulted in the emergence of eight independent states in Central Eurasia and shifted control of the Caspian Sea basin from the Soviet Union and Iran to Russia, Iran, Azerbaijan, Kazakhstan and Turkmenistan. The oil and natural gas reserves of the five Caspian Sea states make up about 14.6 percent of the world's total proven oil reserves, and almost 50 percent of the world's total proven natural gas reserves (British Petroleum, 2002).

The Caspian region is reemerging on the world's energy scene. Commercial oil output began in Baku in the mid-19th century, making Transcaucasia one of the world's first oil provinces. In Central Asia, on the other side of the Caspian Sea, commercial production began in the early part of the 20th century.

This article is an independent analysis of the main issues facing the oil and gas sector developments in countries of the former Soviet Union gifted with major petroleum resources: Kazakhstan, Turkmenistan and Uzbekistan and Azerbaijan in Transcaucasia. Will Caspian oil redraw the global energy map? What is the importance of Caspian Oil for the World Market?

Most of the Caspian littoral states are inclined to entertain quite positive views of the region's potential oil and gas production, and rarely compare the Caspian Sea to "a different Persian Gulf." For the new independent states of the Caspian Sea, Azerbaijan, Kazakhstan and Turkmenistan, energy resources presented the best chance for sovereignty after the dissolution of the Soviet Union.

The collapse of the Soviet Union and the end of the Cold War led to an impressive change in the landscape of Central Asian geopolitics. The strategic geopolitical significance of Central Asia and the Caspian Sea region are evident.

Established oil reserves are pegged at between 15 billion and 31 billion barrels- about 2.7 percent of total world proven oil reserves. The Caspian Sea region's natural gas potential is more important than its oil potential. Turkmenistan holds large reserves of natural gas, but its distance from key consumer markets may mean those reserves will be commercially difficult to develop. Confirmed natural gas resources of the Central Asian States are 230 to 360 trillion cubic feet represent about 7 percent of total world proven gas reserves (Emerson, 2000, pp. 174, 178, 184).

Proven Oil Reserves (billion barrels)

	Proven Oil Reserves			Total	
	Low	High	Possible Low	High	
Azerbaijan	7.0	12.5	32.0	39.0	218.8
Iran	0.1	0.1	15.0	15.1	15.1
Kazakhstan	9.0	17.6	92.0	41.0	49.6
Russia	0.3	0.3	7.0	7.3	7.3
Turkmenistan	0.5	1.7	38.0	32.5	33.7
Uzbekistan	0.3	0.6	2.0	32.3	32.6
Total Caspian Sea Region	17.2	32.8	186.0	167.2	182.8

Source: US Energy Information Administration

Table 1

Natural Gas Production (trillion cubic feet per annum)

	1992	2000	2003	2010
Azerbaijan	0.28	0.20	0.20	0.60
Kazakhstan	0.29	0.31	0.49	1.24
Turkmenistan	2.02	1.89	1.89	4.24
Uzbekistan	1.51	1.99	2.04	3.53
Total Caspian Sea Region	4.10	4.39	4.62	9.61

Source: US Energy Information Administration

The expansion of oil and gas resources in the Caspian region is particularly important for the development of Central Asian and Transcaucasia economies. All of the Caspian Basin states have weak economies and view oil and gas revenues as dangerous not only to their welfare but in some respects, to their viability as nation-states. But there are also undeniable arguments against a choice made in haste.

Investments in the oil and gas sector, including the transportation infrastructure of neighboring countries, could supply significant profits for the region's governments and stimulate investment in other economic sectors. Economic development moved by invest-

ment in the oil and gas industry helps guarantee the financial sovereignty of the Central Asian and Transcaucasia states. Foreign investors not only transport financial resources; they can also help bring up-to-date technology to the local industry, together with environmentally sound production methods, as well as teach modern management techniques.

Caspian Sea region oil and gas has a number of markets now and a wider diversity of possible markets. These include nations trying to meet their economies' need for energy and those that also wish to decrease their dependence on Persian Gulf energy.

Table 2
Potential Market for Caspian Oil by 2010. In Mb/d

Country	Low Estimate	High Estimate
Russia	80	80
Ukraine	100	200
Romania	160	380
Bulgaria	200	200
Turkey	226	226
Iran	300	400
Total	1066	1486

Source: Planecon

The largely new energy resources of the Caspian region present new opportunities for world oil markets and the region. Since the early 1990s, the countries of the Caspian Sea region and Central Asia (Azerbaijan, Kazakhstan, Turkmenistan, Uzbekistan) have estimated to become important players in the international oil and gas trade. The massive distance of Central Asian and Caucasus Oil and Gas reserves from the world's major energy consuming regions requires a significant financial investment to bring them to market.

As the Caspian is a land-locked region, and there is only a small local need for oil and gas, there is therefore a need to build long distance pipelines to Western countries that are dependent on energy imports and see the Caspian basin as a potentially new, non-OPEC resource of oil and natural gas. In this view, managing Caspian ener-

gy resources and pipelines in a region where local and external actors are competing for control, and pursuing diverse agendas will be essential and is linked to series of political and economic factors.

In a regional context, pipeline politics have also an important impact on the interests and strategies of the states occupied and shape their relations with each other. Energy resources in the Caspian Sea area are bound to attract the interest of many powers and actors. The U.S., Europe, Russia, Turkey, Iran as well as China, India, Pakistan and Japan have an interest in economic and political developments in the area and their attention will focus on the market dynamics of energy provisions. China, an extra power immediate to Central Eurasia, could become a powerful force in the region in the coming years. This means it has a significant interest in the import of the region's oil and gas resources. The European Union has its own motives for gaining influence in Central Eurasia and the Caspian Sea region. Because of its geographic closeness, the EU worries that instability in the region might also affect Europe.

The actual power struggle for control over the Caspian hydrocarbon resources has been named the "New Great Game" which refers to the old one. This time there are more actors concerned and the forced for victory is Caspian energy. Some analysts says that the New Great Game consists of an old-fashioned, zero-sum competition between different states, in which direct control over the resources is the policy aim of the states concerned. But for a single country, making decisions regarding hydrocarbon export routes seems very difficult (Cohen, 2002).

The lack of adequate export infrastructure is probably the most difficult problem facing investors in the oil and gas sectors of Central Asia and Transcaucasia. The construction of new export pipelines has become a priority.

"Pipeline Politics" consists of two diverse, but consistent subjects. First, there is an effort for acquisition control over the energy resources of the Caspian. Due to some indefiniteness, particularly the unsure legal status of the Caspian Sea, the control over its resources has been complicated and is in the middle of those contradictory interests of littoral states. Full comprehension of the energy potential of the Caspian region also is impeded by the unresolved legal status of the Caspian Sea. Despite a number of labors, so far only Azerbaijan, Kazakhstan, and Russia between the littoral states have reached an agreement on delineating ownership of the Sea's resources or the rights of development. In addition, interest for energy investment in

the region for several years after the surge of production-sharing agreements during the early and mid 1990s. Some searching efforts have had unacceptable results. Reduced exploration, from less investment, reduced the rate of discovery, with an extra hopeless effect. Despite the obstacles discussed, energy expansion in the Caspian Sea region is proceeding and is likely to proceed further given the extensively apparent prospects for very large energy resources in the region. The pace of progress, however, may be less rapid than might otherwise be the situation. Secondly, pipeline politics comprises problems concerning the development and export of these resources. These two problems are closely connected.

The oil and gas pipeline systems of Central Asia and Transcaucasia were originally intended and built to serve the needs of the Soviet Union. As such, they often cross the limits of its successor states. All gas and oil export pipelines inherent from the Soviet period pass through Russia. Russia's oil and gas pipeline operators, facing capacity constraints due to lack of maintenance and other technical problems, have capped exports from the region. In the case of gas, there is also a certain reluctance to share markets.

If the Caspian Region and Central Asia had not been landlocked or had generously available transit routes, the region would be one of the world's most encouraging oil provinces (Skagen). The United States has approved the great oil and natural gas potential of Central Eurasia and the Caspian Sea region (Ian, 1998, pp. 27-35). The USA created, in 1996, a coalition with Turkey which could be explained by being pressing by Turkish. For the USA, it was about trying to prevent Iran from becoming included in the infrastructure network, and they also wanted to strengthen the other middle power in the region, namely the NATO ally Turkey. The USA needs Turkey, with a view of the middle east, for armed forces bases. A pipeline from Baku to Ceyhan in this respect offered its services from the American view to make use of this port better. However, it is clear that the Baku-Ceyhan route promoted by the United States is simply not economically viable. A creation of a bypass route from the Black Sea into Europe would still be more economical than a direct Baku-Ceyhan line. The United States wants this exacting export route, because it enhances American position in the region and bypasses both Russia and Iran. Apart from oil-and U.S. firms control the consortia which previously control the major oil fields of the Caspian-American national interests in the Caspian Basin are more derivative than elementary (Allison & Buskirk, 2001). The oil companies appreciate that

they are making high-cost, long-term investments; for any pipeline to be constructed, it must meet the economic difficulties of the oil companies and producing countries and cannot be forced by political motivations. Without making too many assumptions about transit fees, it is clear that the Baku-Ceyhan route promoted by the United States is just not economically feasible. The distance is cost-prohibitive and the reimbursements of Ceyhan are not more important than the costs of using other ports.



Caspian Basin countries and pipelines

Figure.1 Courtesy of the US Energy Information Administration
December 2004. From <http://www.eia.doe.gov/emeu/cabs/caspian.html>

In the Caspian region, the development of oil resources and exporting them would definitely have an enormous force on the political and security arrangement of the region. Geological and logistical difficulties in amassing big oil export volumes from Central Asia and the Caucasus region quarrel in favor of a multiparty negotiation regime, where inclusively rather than competition is encouraged. Political instability remains the biggest threat to future oil and natural gas exports from the region. Unsettled disputes in Georgia, Azerbaijan, Turkey and Russia could expand into aggressive conflicts, transforming oil or natural gas pipelines into potential targets.

Lastly, in regard to energy security for Asian actors as well as the United States, the key point is that the Persian Gulf's significance will not be mitigated by the energy resources of the Caspian. Quite, it will be diffidently, but not unimportantly, supplemented.

Effects of the Caspian region conflicts on oil and gas contribute

A little over a decade ago the Caspian region underwent a dramatic transformation when western policymakers began discussing the prospects of a trans-Caucasus pipeline that would transit what many thought to be one of the most unstable regions of the world. Azerbaijan is the only state of the region, which is both a producer and a viewpoint transit region of the Caspian oil and gas. The BTC and BTE pipeline programs involve Azerbaijan as the most important participant of the projects. But both BTC and BTE are located within 14-16 kilometers from the zone of Nagorno-Karabakh conflict. A possible resumption of the war between Armenia and Azerbaijan may risk the functioning of the pipelines. The Iranian side has also several times inferred that in the case of US strikes, Tehran will attack the Caspian deposits and regional pipelines. As well Karabakh, Azerbaijan has some other problems of independence connected with the Talishian and Lezgin minorities.

Armenia is the only state, which doesn't take part in the Caspian hydrocarbons export projects. At the same time Armenia is the only strategic ally of Russia in the region and has some Russian military bases on its territory.

Georgia is a country with several ethnic conflicts, which doesn't control a big part of its official territories and which, more than Azerbaijan, is concerned about entering a military conflict with its former autonomies. Its relations with Russia may also end with a risk to the normal functioning of the pipelines. At the same time, Tbilisi-Abkhazia and Tbilisi-South Ossetia relations have two prospects: independence of the former autonomies or a new war, initiated by Tbilisi, to regain the territories under Georgian control. Both variants will harm the stability of Georgia and security of its pipelines.

In a region burdened with conflict, the United States navigated its way through these conflicts, many of which stay unresolved, to assist these states in escaping the fate of geography and develop alternative means for reaching western energy markets.

Caspian Gas and European Energy Security

After 10 years of criticizing the Caspian-Turkey energy routes projects, Russia stopped the building of the pipelines. Russia's authoritarian control of Caspian and Central Asian gas is part of Russia's policy toward Europe. Moscow tries to add Central Asian gas resources to Russia's own gas resources in a single pull to be marketed by Russia to European countries. If successful, this policy would double the volume of natural gas reaching Europe from Russia. Concerning EU-Russia relations, the slide of the EU into overdependence on Russia cannot but influence its common foreign security policy. It will also unavoidably nudge individual west European countries, including the main consumers such as Germany, into their own economic and political views with Russia, bypassing the common foreign security policy.

Now Russian companies said that they are involved in using the BTC pipeline for the purpose of Russian oil export. In the future it may establish useful for the EU not to "get rid of Russia" in the region, but will be of interest to Moscow and occupy it in mutual energy projects. This can make Russia use its power in Armenia, Abkhazia and South Ossetia for the purpose of securing the pipelines

The EU must stop persuading everyone in the region that the main purpose of the European policy is the support of democracy, human rights protection, and freedom of speech. The real energy and security interests of Europe should be presented as important for the EU policy in the South Caucasus and everyone should know that acting against these interests is likely to be punished with real and substantial economic, financial and even political instruments. It is important for Europe to become a real geopolitical player in the region, which may become a sign for Iran, Turkmenistan and Kazakhstan that there is a force in the South Caucasus, which will use all opportunities to get their oil and gas. The EU can't do something as "an organization with limited interest in security and geopolitics" any more.

The volume of Caspian gas reserves lie on the eastern shore. All pipelines routes go from there via Russia, with the minor exception of the pipeline from Turkmenistan to Iran with the capacity of 10 to 13 billion cubic meters of gas per year. It is essential to take political action with U.S. and EU synergy to bring east Caspian gas directly to European markets.

East Asian countries also are potentially new markets for Caspian energy. Japan previously imports an important quantity of natural gas; and energy consumption in India and Pakistan is growing quickly. Possibly most important, China's proven oil and gas reserves are small compared with the present and potential size of its economy, and the recent steep increases in its oil consumption. This has led, for example, to the construction of an oil pipeline from Kazakhstan to China.

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Investment Climate in Georgia and Attracting Foreign Direct Investment

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Abstract

This paper focuses on the levels of foreign direct investments coming to Georgia. The main areas addressed by this study include: how to create a favorable investment climate in Georgia and on the possible means of encouragement of FDI inflows in the Georgian economy. This paper aims to fill the knowledge gap in the area of foreign direct investment (FDI) research in Georgia. Various dimensions of FDI were analyzed from a comparative perspective drawing on the case studies of investors in Georgia. The analysis first focused on major obstacles that investors face while performing. Then, attractive features of business climate of Georgia were investigated. Finally, performance issues confronting FDI firms were analyzed. The study results indicated that reasons to invest in Georgia are geopolitical situation and having empty market, and incentives to improve the investment climate of Georgia were State guaranties, tax holidays, political stability, development of infrastructure and advertisement. Another result of the study was that Georgian Government does everything to have free market conditions and do not intervene to the economy. Although the issue of safety affects foreign investors, it does not act as a major deterrent of FDI inflows. The most serious problem influencing the performance of FDI firms were found to be not enough skilled and educated local labor force, economic and political uncertainty. In general, however, it was found that foreign investors have been satisfied with their performance largely due to the relatively smooth competition and the availability of several market niches in country market.

საინვესტიციო კლიმატი საქართველოში. უცხოური პირდაპირი ინვესტიციების მოზიდვა

ფარუკ გურსოი
შავი ზღვის საერთაშორისო უნივერსიტეტი

ნაშრომი იკვლევს უცხოური პირდაპირი ინვესტიციების შემოსვლის პირობებს საქართველოში. მთავარი საკითხებია: საქართველოს ეკონომიკაში საინვესტიციო კლიმატის შექმნა და შესაძლო უცხოური პირდაპირი ინვესტიციების (FDI) შემოსვლის მხარდაჭერა საქართველოს ეკონომიკაში. ნაშრომის მიზანია ხელი შეუწყოს უცხოური პირდაპირი ინვესტიციების კვლევას. შედარებითი ანალიზის საფუძველზე, უცხოური პირდაპირი ინვესტიციების (FDI) მნიშვნელობა განხილულია იმ გამოცდილებაზე დაყრდნობით, რომელიც ინვესტორებმა მიიღეს და იმ სირთულეების ანალიზის საფუძველზე, რომელთა წინაშეც დგანან FDI ფირმები საქართველოში. კვლევის შედეგებით ნათელი ხდება, რომ ქვეყანაში ინვესტიციების შემოსვლას განაპირობებს გეოპოლიტიკური მდგომარეობა, თავისუფალი ბაზრის პირობები და სტიმულები: სახელმწიფო გარანტიები, გადასახადები, პოლიტიკური სტაბილურობა, ინფრასტრუქტურის განვითარება და რეკლამა. კვლევის შედეგების მიხედვით საქართველოს მთავრობა მხარს უჭერს თავისუფალი ბაზრის პირობების შექმნას და არ ერევა ქვეყნის ეკონომიკაში. ერთ-ერთ ყველაზე მნიშვნელოვან საკითხს ინვესტორებისათვის უსაფრთხოება წარმოადგენს. ფირმებისათვის მთავარ წინააღმდეგობად კი არასაკმარისად კვალიფიციური და განათლებული სამუშაო ძალა რჩება, ამას ეკონომიკური და პოლიტიკური სიტუაციის გაურკვევლობაც ემატება. სირთულეების მიუხედავად უცხოური ინვესტიციების შემოსვლას ხელს უწყობს შედარებით მსუბუქი კონკურენცია და ქვეყნის ბაზარზე არსებული რამდენიმე ნიშა.

Foreign direct investment (FDI) can play an important role given the inability of developing or emerging countries to modernize their industries and support their socio-economic development on their own. FDI by multinational companies in emerging market economies of Central Asia and Caucasus region is a controversial issue. There are both critics and defenders of FDI. It was confirmed by Farrell et al (2004) that FDI unambiguously helped the receiving economy as it raises productivity and output, thereby raising productivity and production capacity, thereby raising national income and standards of living of society. Georgia is newly independent country of the former Soviet Union (FSU). Since the early 1990s, the country has received the attention of foreign investors and has started to become the subject of FDI inflows. Georgia has relatively small markets and do not have rich natural resources (e.g. oil, natural gas and rich minerals) compared to other countries in the region, such as Azerbaijan, Turkmenistan, Kazakhstan and Uzbekistan. A majority of the foreign investment flows toward the region is in the form of FDI (Garibaldi et al. 2001). Foreign investors have been active in the region with different motives (Kaynak E., 2006).

After gaining its independence, Georgia encountered problems such as ethnic conflicts and civil war. During the 1992-1995 periods, Georgian economy was in a very poor situation. Severe economic problems coupled with grave criminal situation hindered FDI inflows to the country (Economist, 1993). Starting from 1995 Georgian economy began to show development signs. But the remarkable increases in the economy occurred after the rose revaluation with new government, mostly due to the introduction of a political and economic stabilization program, which involved the strengthening of central authority, decline of crime rates and acceleration of privatization. These efforts had a positive impact on the economy and led to an increase in the value of FDI.

This paper focuses on the levels of foreign direct investments coming to Georgia. The main areas addressed by this study include: how to create a favorable investment climate in Georgia and on the possible means of encouragement of FDI inflows in the Georgian economy.

Many Georgian and foreign organizations have performed research on the barriers to the attraction and operation of FDI in Georgia, with recommendations on how to deal with the issue provided to Georgian government.

However, it is becoming increasingly obvious that some barriers have not been discussed, and the recommendations provided have been difficult to implement.

Moreover, the existing studies have not acknowledged the priorities of the Georgian economy with few highlighting the positive features of the Georgian business climate of which, there must be some.

By conducting this study we aim to find answers to the following questions:

“What barriers mostly affect foreign businesses in Georgia that are not generally addressed in the existing studies?

“What has assisted foreign businesses, which are still operating in Georgia, to survive and resist or overcome the obstacles, which has caused the withdrawal of other businesses?

< The fact that many companies are operating in Georgia, makes it clear that, along with strong will and motivation, there must be some other positive features about Georgia and doing business in Georgia that help investors to resist and overcome multiple obstacles.

< What are these positive features? Are they significant enough to encourage foreign investors to continue their operations and start new businesses?

Therefore, the main purposes of my research are:

< Identify problems foreign businesses encounter in Georgia

< Identify positive features involved in doing business in Georgia

It is obvious that any company is taking certain risks by deciding to invest in the economy of a foreign, especially less developed, country. Accordingly, in order to attract the necessary investment the recipient country must minimize these risks for a foreign investor, i.e. create the most favorable investment climate possible. This paper will discuss what needs to be done in Georgia to achieve this purpose, through the elimination or minimization of existing barriers and the development of the country's positive features; this thus enabling the country to benefit from the economic development facilitated by the flow of foreign investments into the country.

Data collection and the respondents

The study was conducted among 64 companies, from Tbilisi in September, October, November and December of 2006. Out of 64 companies, 52 are foreign and 12 are domestic ones. Sectoral breakdown of the companies as follow: manufacturing (31), services (18), transport (7), energy (5), and banking (3). Most of them were large

companies (38), medium size (17) and small ones (8). I personally visited 55 companies, remaining part distributed by my outstanding students. Respondents selected through convenience sampling. 75 questionnaires were distributed and 64 of them returned and response rate was 85 percent. The high response rate was very reasonable, because of my previous work, I had good relations with companies and it helped me a lot in getting the questionnaires filled. Overall a "typical" response rate is about 50 percent; a "good" one is 60 percent to 70 percent (Kervin, 1992).

Therefore, a "drop-off, pick-up" method of survey administration was found very suitable for the purpose of this study and it was adopted. Before the survey administration, a pre-test of the questionnaire was conducted with a small group of respondents, and the result was satisfactory. The most important the reason of not returning some papers is the behavior altitude of the firm's owner.

The statistical package for social sciences (SPSS) is used for the following calculations.

Survey was conducted by Firm's owner; general managers or representatives of the firms who were generally marketing or sales managers. They took part in the survey and get the questionnaires filled.

The Questionnaire

Data were collected by means of self-administered questionnaires, each lasting for approximately 30 minutes. The questionnaire was first developed in English and then translated into Georgian for Georgian firms. Then, a business professor and a Georgian language professor who are also fluent in English checked the Georgian translation. Finally, Georgian translations of the questionnaire were retranslated back to English by four students in order to ascertain that it was conveying the exact meaning as originally designed. Surveys were based on a questionnaire consisting of three parts: the first asked a series of questions focusing on the company information; the second comprised some questions about the investment climate of Georgia. The third part was about the existing attractive futures of Georgian investment climate and what should be done to have a favorable investment climate. A special effort was made to keep the questionnaire as simple as possible in terms of structure, wording, and scaling.

The data collected were analyzed and used to identify; the positive features and the perceived existing barriers of doing business in Georgia, potential areas of development and growth, and the changes desirable to the foreign investors - the respondents to our survey.

Table 1
Mean Scores for Investment Climate in Georgia

<u>Factors</u>	<u>Mean Scores</u>
Skills and Education of available workers	2.3
Crime, theft and disorder	1.97
Economic and Regulatory Policy Uncertainty	1.92
Cost of Finance (interest rate)	1.66
Electricity	1.53
Anti-competitive or informal practices	1.44
Customs and Trade regulations	1.36
Tax administrations	1.35
Macroeconomic instability(inflation, exchange rate)	1.34
Tax rates	1.32
Corruption	1.20
Access to Finance	1.04
Transportation	0.97
Labor Regulations	0.79
Business Licensing and Operating Permits	0.68
Access to Land	0.64
Telecommunication	0.45
Overall Avarage	1.29

Mean scores are based on a five-point scale ranging from 0= No Obstacle to 4=Very Severe Obstacle.

Table 1 displays the results of mean scores for each environmental impact statements used in the study. The statements in Table 1 have been arranged in order of the magnitude of the mean score. The highest mean score (2.3) was for the statement that the biggest obstacle for investing in Georgia is skills and education of available workers. This is the major obstacle for the investor to operate and

grow their business. Specially, firm's managers indicated that they have lack of skillful worker in technical jobs. When Georgian roads and building were adjudicated, there were only foreign companies ready to compete. This is a good indicator that in Georgia there is lack of skillful worker, mostly in technical jobs. Although crime, theft and disorder levels decrease recently, investors still do not feel safety (1.97). They think that economic and regulatory policy uncertainty is moderate obstacle (1.92). It is a great success of the new government that this issue was before among severe obstacle.

Cost of finance (interest rate) is another difficulty to operate and grow business (1.66). Some respondents argue that interest rate is reasonable when we compare it with the risk factor. Some of international investors even stated that because of high interest rates, they get credits from banks in Europe. Electricity is no longer a major problem (1.53). Most of the investors who indicated electricity as an obstacle have branches in different regions of Georgia. That is to say, it is mostly a regional problem. An anti-competitive or informal practice seems to be a problem that we have to fight with (1.44).

Another issue for foreign investor for importation or production of different goods in the country is the problem of poor performance of the official at the customs (1.36), which also corresponds to the findings of the other researches. Some investors suffer from the officials who are not experienced enough at their fields and they waste time at the borders. Tax administrations (1.35) another serious issue stays on the table, especially finance police makes it difficult to operate business.

Most of the comments made by our respondents' show that macroeconomic instability (inflation, exchange rate) are a minor obstacle (1.34), they are stabile. Tax rates (1.32) are reasonable after the enacted new tax code in 2005 that significantly reduced tax types and rates.

Previous studies showed that corruption used to be the number one problem of Georgia (1.20). Thanks to new government's considerable efforts against corrupted officials, it is no more very severe obstacle.

Investors do not think that it is difficult to “access to finance” (1.04). But some of them stated that it is difficult to get the amount of money that they demand. That is why; they have to work with several banks to get the amount that they want. As we see from the numbers, transportation (0.97), and labor regulations (0.79) are not serious issues for the country anymore.

The number of business activities subject to licensing and permitting regimes was reduced by 84%. Due to successful reforms in “business licensing and operating permits” (0.68), Georgia has favorable investment climate for doing business.

Access to land (0.64) and telecommunication (0.45) values, according to our corresponds, are very close to no obstacle. But I should indicate that some investors have problems of telecommunication in the regions, to contact head quarters with offices in the region.

Table 2
Factor Analysis
Factor Analysis of Investment Climate

Factors	Factor Loadings		
	1	2	3
Factor 1: Macro environmental concerns			
Macroeconomic instability (inflation, exchange rate)	.791	.146	.004
Economic and Regulatory Policy Uncertainty	.732	.000	.048
Tax administrations	.704	.079	.020
Tax rates	.671	.204	.259
Labour Regulations	.584	.066	.418
Business Licensing and Operating Permits	.416	.323	.103
Factor 2: Dissatisfaction with illegal practices			
Corruption	.378	.681	.059
Skills and Education of available workers	.021	.643	.059
Electricity	-.051	.638	.380
Anti-competitive or informal practices	.275	.583	.113
Customs and Trade regulations	.118	.568	-.111
Factor 3: infrastructure and financial issues			
Telecommunication	-.161	-.148	.641
Transportation	.208	.246	.576
Cost of Finance (interest rate)	.329	.198	.559
Access to Finance	.208	.321	.503
Access to Land	.187	-.319	.492
Crime,theft and disorder	.008	.415	.467

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Companies responses were then factor analyzed to determine the salient factors underlying Georgian Investment Climate and the surrounding environmental factors. Factor analysis produces hypothetical constructs, called factors, which represent sets of variables (Harman, 1967). The principal component method of factor analysis was used with a varimax rotation. The resultant Varimax rotation factors are given in Table 2. The analysis produced three factors which explained 46.68 percent of the total variance.

The first factor in Table 2 consists of: “Macroeconomic instability (inflation, exchange rate) (0.791)”, “Economic and Regulatory Policy Uncertainty (0.732)”, “Tax administrations (0.704)”, “Tax rates (0.671)”, “Labor Regulations (0.584)”, “Business Licensing and Operating Permits (0.416)”. This factor accounts for 18.31 percent of the total variance.

The second factor accounts for 15.43 percent of the total variance and “Dissatisfaction with illegal practices” is shown here, “Corruption (0.681)”, “Skills and Education of available workers (0.643)”, “Electricity (0.638)”, “Anti-competitive or informal practices (0.583)”, “Customs and Trade regulations (0.568)” are loaded on this factor. This factor may be labeled as care for foreign investors.

The third factor in Table 2 delineates a cluster of “Telecommunication (0.641)”, “Transportation (0.576)”, “Cost of Finance (interest rate) (0.559)”, “Access to Finance (0.503)”, “Access to Land (0.492)”, “Crime, theft and disorder (0.467)”, This factor accounts for 12.93 percent of the total variance. This factor may be labeled as foreign investor's dissatisfaction with infrastructure and financial issues.

Table 3
Factor analysis results- Consumer Environmental

Factors	Eigenvalues	% of Variance	Cumulative variance%
Factor 1:			
Macro environmental concerns	3.113	18.312	18.312
Factor 2:			
Dissatisfaction with illegal practices	2.624	15.435	33.748
Factor 3:			
Infrastructure and financial issues	2.200	12.939	46.687

Notes: aRotation Sums of Squared Loadings of Total Variance Explained

Reliability Analysis

Cronbach's coefficient alpha was used in this study to assess the reliability of the measures. Nunnally (1976) suggests a reliability coefficient of 0.60 or larger as a basis for acceptance of the measure. A Cronbach alpha coefficient of 1 would indicate perfect uni-dimensionality within a scale. When Cronbach alpha was computed for all the seventeen scale items this was found to be 0.893. This indicated the possibility that the entire scale was uni-dimensional. Cronbach alpha coefficient of 0.893 can be considered a reasonably very high reliability coefficient. Based on this, it can be assumed that all 17 items used are measuring the same construct (FDI and Investment Obstacles in Georgia) and, therefore, a summative measure can be used to represent the Importance of Investment Climate and Obstacles in Georgia score of the respondents (see Table 4).

Table 4
Reliability statistics

	Cronbach's Alpha	N of Items
All	.893	17
Factor 1	.823	6
Factor 2	.741	5
Factor 3	.672	6

Factor 1 had six items and reliability of 0.823; factor 2 had five items and reliability of 0.741; factor 3 consists of six items with reliability of 0.672. Even though reliability of factor 3 is relatively low, the factor coefficients of the items are highly polarized (see Table 4).

Table 5
Mean Scores for Government Intervene in the Economy

Factors	Mean Scores
Sales	0.35
Employment	0.34
Wages	0.29
Pricing	0.27
Investment	0.23
Mergers	0.21
Dividends	0.15
Overall Average	0.27

Mean scores are based on a five-point scale ranging from 0= Strongly disagree to 4=Strongly agree.

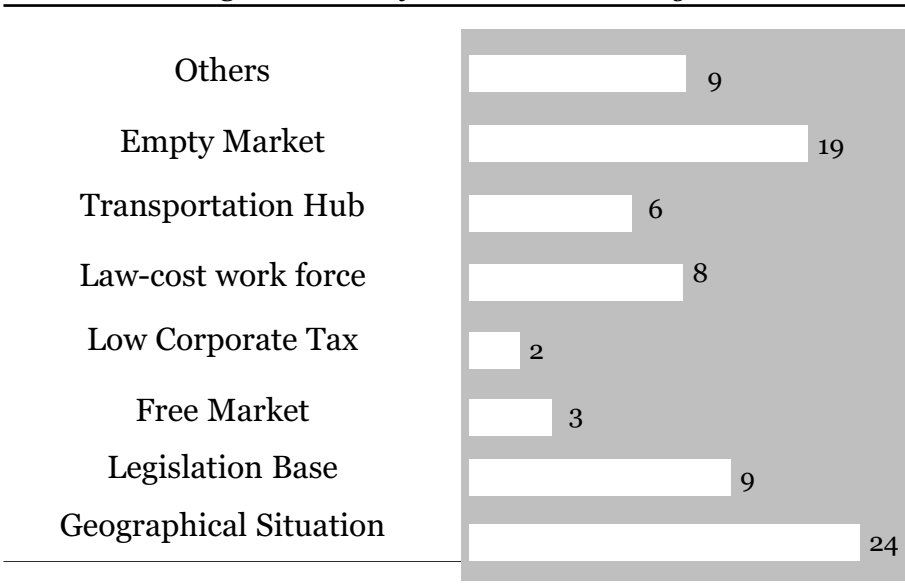
Table 5 displays the results of mean scores for each environmental impact statements used in the study. The statements in Table 5 have been arranged in order of the magnitude of the mean score. As we can see from the numbers that Georgian Government does not intervene to the economy. The highest mean score (0.35) was for the statement for sales. Employment means score is 0.34, wage is 0.29, pricing is 0.27, investment is 0.23, merger is 0.21 and the last value is dividends (0.15).

The values are parallel with the aim of the government. The aim is to establish the free market economic conditions in Georgia as it was stated by the minister of the Economic Development of Georgia. The respond of the 64 companies shows that Georgia is on the right way in order to have free market economy.

Decision on Investing in Georgia

As the survey results showed, most of the respondent companies have selected Georgia because of the geopolitical situation (24 out of 64 responses). The next most important incentive for starting business in Georgia was empty market (19), followed by: free market legislative base (9), low-cost employment (8) and transportation hub between Europe and Asia (6). WTO Membership and low cooperate cost were other named important incentives for investing in Georgia. Most of the companies indicated more than one reason for the following evaluations.

Fig. 1 *Reasons of investment in Georgia*



As table 6 shows us, the geopolitical situation is obviously the biggest asset of Georgia. Despite several problems, including having Chechnya in its neighborhood and the rebel regions of Abkhazia and South Ossetia, Georgia still seems to be attractive due to its location. It is the geopolitical situation, which Georgia has above other countries in being chosen.

This is particularly important when we take into consideration that 40 % of the respondent companies have invested and are continuing to invest in other CIS countries. For Georgia it means competition from other CIS countries for foreign investments in the region, is becoming extremely difficult in view of significant development achievements of the other countries in the region.

One interesting and recurring remark was that most of the respondents did not have high expectations for the rate of return. 70 % of the respondent companies stated that expectations were moderate and the actual results did not differ greatly from them. So forecasts made based on information collected and analysis made prior to investing in Georgia, in most cases turned out to be valid. Of course there were some unpleasant surprises for foreign companies, but generally they were manageable. Generally, we may conclude that in spite of the lack of available data investors were quite well informed about the problems that exist in Georgia and despite this they still decided to invest in the country.

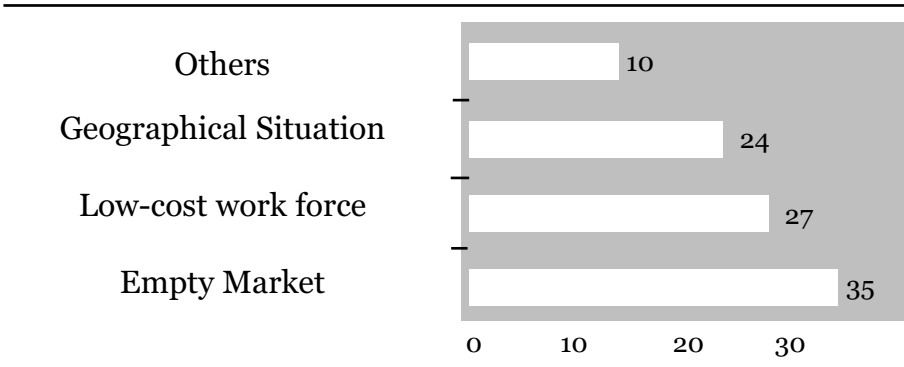
It is noteworthy that 55 % of the respondent got credit from the Georgian banks. This shows that banking system of Georgia received favorable comments from the overwhelming majority of the respondents. Most of the respondents said it is meeting their requirements, although others admitted that they thought it needed further development, but were impressed over the significant progress that had been made and the rate of development. Several respondents disapproved of high interest rates, though; some underlined that for Georgia it is normal rate because of the risk factor. Some indicated that Georgian banks are not big enough to finance the amount that they want. Some said that they take the credits from European banks where the interest rate is very low comparing to Georgia.

Answering the question of whether they consider their investment successful, 57 out of 64 respondents answered positively. Amongst the negative responses, the main reasons provided for continuing operations in Georgia despite of the unsuccessfulness of investments were: "we will wait and see". They have great hope to make money in the future. Although, more positively 53 of the respondents reported of plans to expand their businesses in Georgia. In view

of a general negative impression of business climate in Georgia, it is unexpected to find out that 85 % of the respondents would recommend their partners and colleagues to invest in Georgia. They insistently underlined that high positive respond to questions “expand their business and recommend their partners to invest in Georgia” is because of the new government successful reforms.

According to the responses, one of the biggest obstacle that they have is about the judicial system. 24 % of the total response said that they do not trust in Georgian judicial system at all, and it is noteworthy that almost all of them are foreigners. 19 % do not trust in most cases and another 19 % tend to not trust. So, totally 62 % do not trust in judicial system to some degree. 38 % trust in the judicial system, just 7 % trust Georgian judicial system fully.

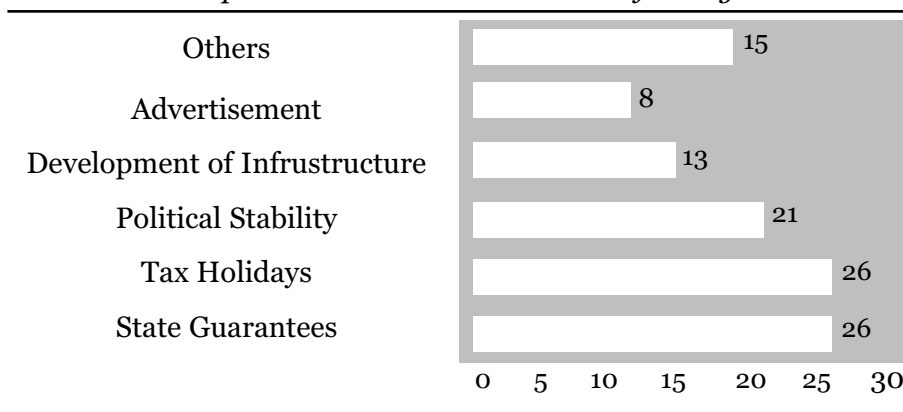
Table 7
Attractive Features of Business Climate of Georgia



Moreover, it was very interesting that some companies trust in judicial system when they have conflicts with private sectors but they do not when they have it with government.

According to our respondents, currently the best attractive feature of business climate of Georgia is empty market (see table 7). They believe that today it is easy to invest in Georgia but later there will be huge competition to find sector to invest. They think that to exist in the market today will give them great advantage in the future. Second important attractive feature of business climate of Georgia is the low-cost work force. Comparing to other countries in the region, they believe that this is a reason to invest in Georgia. Another important feature is the geopolitical situation. Georgia will always be attractive to the foreigner for its geopolitical position.

Table 8
Incentives to Improve the Investment Climate of Georgia



Thanks to new economic reforms and incentives, FDI flow to Georgia dramatically increased in the last two years. Most of our respondents believe that with the promotion of the positive features Georgia currently possesses more FDI will be attracted into the Georgian economy. The suggestions on what measures can be taken to encourage investment in Georgia included: state guaranties, tax holidays, political stability, improvement of infrastructure and advertisement of the country (see table 8).

The world market for FDI is becoming increasingly competitive. To be seen as an attractive place for investors seeking to do business, Georgia must expand on its progress to date and begin to think more creatively about attracting FDI. Starting from 1995 Georgian economy began to show development signs. But the remarkable increases in the economy occurred after the rose revaluation with the new government, mostly due to the introduction of a political and economic stabilization program, which involved the strengthening of central authority, decline of crime rates and acceleration of privatization. These efforts had a positive impact on the economy and led to an increase in the value of FDI.

According to survey results, although increase in FDI in the country recently, there is much to do to attract more investors. These can include business climate reforms that reduce the costs of doing business, offering a variety of incentives such as tax preferences or government financed infrastructure develop-

ment to serve particular investors, and targeting and recruiting investors from particular sectors believed to be especially suitable. Another important issue is that investors in Georgia can not find good enough skilled and educated workers. This shows that we should pay attention more for technical training schools or courses and educate people that are needed. It is another danger for us to be considered very seriously that foreign investors still do not feel safety and they still do not trust much in Georgian judicial system. The suggestions on what measures can be taken to encourage investment in Georgia included: state guaranties, tax holidays, political stability, and improvement of infrastructure and advertisement of the country. It is obvious that Georgia's population, estimated at about 4.2 million, is too small to be attractive to many foreign investors. However, its unique geographic location and its trade agreements with neighboring countries make it attractive as a platform from which to serve other markets, particularly the EU and Turkey. Longer term, if relations with Russia improve, Georgia could also become an important platform to serve that market. Besides lucky location, empty market is another attractive feature of business climate of Georgia.

While this study has tried to fill the existing knowledge gap with regard to FDI issues in this relatively under-researched part of the world, further research is definitely called for in order to gain deeper understanding of the issues confronting both foreign investors and domestic firms when forming strategic business alliances and partnerships. Another line of research would be to investigate the factors influencing foreign investors' choice of alternative modes of investment when operating in these regions. As the survey utilized in this study was undertaken solely from the perspective of foreign investor, a survey utilizing the perspectives of both foreign and indigenous firms would be a valuable contribution to the extant literature. As the degree and level of FDI is directly related to a country's level of economic development, an additional study which looks at the relationship between FDI and level of economic development of countries will be illuminating.

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Child Poverty In Armenia

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Abstract

Children are at the highest poverty risk in any country. Poverty is a blight denying poor children the opportunities that others quite often take for granted. Aiming at elaborating policies/recommendations to eradicate child poverty, the report touches upon social-economic conditions of households with children, presents some measures of child poverty, and highlights social costs of passing childhood in poverty.

ბავშვთა სიღარიბე სომხეთში

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თითქმის ნებისმიერ ქვეყანაში ბავშვები სიღარიბის მაღალი საფრთხის წინაშე დგანან. სიღარიბე ზოგიერთ ბავშვს იმ შესაძლებლობებს ართმევს, რომელიც გარკვეული ფენისთვის ჩვეულებრივ სხელმისაწვდომია. პრობლემის გადაჭრის თვალსაზრისით სასურველია შემუშავდეს პოლიტიკა, რომელიც საგრძნობლად შეუწყობს ხელს არსებული ვითარების გამოსწორებას სოციალ-ეკონომიკური მდგომარეობის გაუმჯობესების გზით.

There is a continual deliberation on what “poverty” means, and how to measure it. Perhaps the most convincing definition emphasizing the relative nature of poverty is: Individuals, families and groups in the population can be said to be in poverty when they lack the resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or are at least widely encouraged and approved, in the societies in which they belong (Townsend, 1979: 31).

Poverty negatively affects children not only via worsening their material conditions but also limiting access to quality health care and education, creating barriers for social inclusion, and deteriorating the opportunities that others very often take for granted. Along with lack of money poverty is a psychological condition which has a serious impact on the socialization of children: it hampers their adaptation to school, makes them lower their aspirations, accept their “fate” and be

content with little. Because of lesser life expectancy (due to higher mortality rates) and lower level of literacy (because of higher drop out rates) poor children lack the opportunity to accumulate knowledge and skills enough to sustain themselves in the future. They are more likely than non-poor children to experience a number of adverse outcomes including poor health and death, failure in school, out-of-wedlock births, and violent crime. Recognizing that a poor child with no future prospectus is a huge loss of human capital for the nation, tackling child poverty must be a cornerstone for building a progressive, free of poverty society.

Omer Moav developed a theory that offers an explanation for the persistence of poverty within and across countries. Key assumption for the study is that individuals' productivity increases with their own human capital. In contrast to poor households that as a rule choose relatively high fertility rates (resulting on the quantity of children) with relatively low investment in their children's education, as a result of which their offspring are poor as well, high-income families choose low fertility rates with high investment in education (influencing the quality of children) of their offspring, and therefore, high income persists in the dynasty. For low wage earners, the opportunity cost of time is low, and hence children are "cheap" and the relative price of child quantity increases with the wage rate" (Moav, 2003: 2).

Some analysts believe that poverty itself generates a way of existence that constituted a unique "culture of poverty". Politicians and policymakers allege that it is "futile and wasteful to mount public policy initiatives to ameliorate the lives of the poor because the culture of poor people themselves mandates endemic and enduring poverty." Living in chronic need develops special sets, values and stable behaviour patterns which are passed on "as inheritance" and which in their turn promote the intergenerational poverty (Philen). The analysts however, rejected considering the roles of education, substandard housing, poor health, inadequate medical care, job opportunities, and racism or discrimination in generating and prolonging poverty.

Evidence suggests that parents' education positively affects children's education: there exists a trade-off between quantity and quality of children, fertility is negatively correlated with education, and there is a strong negative correlation between women's schooling and fertility, a strong positive effect of parental schooling on children's schooling. The decline in fertility as incomes grow is the result of the rising opportunity cost of well educated women's time, who as

a rule prefer career advancement to having more children. Investigations show that mother's education and age; sibship size; mother reads, talks to child, answers verbally with positive voice; availability of books, magazines, and tape/record player; visits to museum; safe, tidy, and not dark home; and many other factors shape the environment favourable for intellectual development of a child. In general, physical environment, parental styling, cognitive stimulation, health at birth, childhood health, child care quality, and participation in Early Childhood Development (ECD) programs are those most significant factors that affect the child's intellectual development, which is the basement of human capital accumulation (Guang & Harris, 2000, p. 437).

Early studies of the effectiveness of ECD programs demonstrated remarkably higher IQ scores of ECD program participants than those who did not take part in such programs. However, with passage of time the IQ scores of these two groups leveled out and the value of ECD programs was questioned. Nonetheless, long-term studies of ECD program participants illustrate significant benefits of the program that in effect bring sustainable results: higher levels of verbal, mathematics, and intellectual achievement, greater success at school, including less grade retention and higher graduation rates, higher employment and earnings, better health outcomes, less welfare dependency, lower rates of crime, and greater government revenues and lower government expenditures. ECD programs enable the participating children to enter school "ready to learn", helping them achieve better outcomes in school and throughout their lives (Lynch, 2004, 3-4).

Children participating in ECD programs receive psychosocial stimulation, nutritional supplements, health care, and their parents receive training in effective childcare. Grade repetition and dropout rates are lower, performance at school is higher, and the probability that a child will progress to higher levels of education increases. ECD is associated with decreased morbidity and mortality among children, fewer cases of malnutrition and stunting, improved personal hygiene and health care, and fewer instances of child abuse. ECD also leads to better socially adapted adults who are less aggressive, more cooperative, and show reduced criminal behavior and less delinquency (Mayer-Fulkes, 2003, p. 4).

In making their life plans teenagers are inclined to take into account the support which the family can provide them with. Money and parents' (more critically mothers') education are the two essential

family resources that enable school-children to make their future plans. Both the family's material wealth and the mother's high educational status contribute to the forming of teenagers' life-long strategies: raising their aspirations, facilitating adaptation to school conditions and boosting their readiness to take responsibility for their future. The wealthier and more educated are the parents (especially the mother), the higher are the children's aspirations and plans, and the stronger is the confidence that their plans will come true. On the contrary, absence of both kinds of these resources propagates social outsiders who are either prepared to give up any hopes of success and humbly acknowledge that they are doomed to poverty and are stuck to it (Shurygina, 1999).

Measuring Child Poverty

Poverty risk largely depends on the structure of a household and the number of dependants in it. In Armenia, households having children below age 7, or having 3 and more children are among those exposed to poverty risk most of all. Children are the most vulnerable segment of Armenia's population. In Armenia, 34.9% of preschool age children were poor and 5.1% very poor in 2005 (correspondingly 41.9/8.0% in 2004), being the highest among all age groups. The second highest level of poverty was in the age group 6-14 for which the poverty incidence was 32.0% and extreme poverty rate was 5.3% in 2005 (36.6/7.2% in 2004) (SSPA, 2006, p. 22).

Why so many children are poor? The main reason of this is that the poor families as a rule have more children. Additionally, poor families being unable to sufficiently invest in education and health of their children expose them to high risk of persistent poverty as a result of suppressed earning capacity due to poor human capital accumulation.

Table 1.
Poverty line in Armenia, 2001-2005 (in USD)

	2001	2002	2003	2004	2005
Extreme poverty line	18.5	18.2	20.1	23.4	29.0
Poverty line	30.6	30.2	32.0	36.3	44.3

Source: ILCS- 2005, p. 22, ILCS- 2006, p. 28,
[/www.edrc.am/project.html?cat_id=71](http://www.edrc.am/project.html?cat_id=71), own calculations

Table 1 and Table 2 reveal that the majority of households in Armenia overcome only food poverty line without even reaching the complete poverty line. The large families with more than 6-7 members and having more children mainly live on money less than the food poverty line, that is in extreme poverty.

Table 2.

Per capita income by family size and presence of children in the family, Yerevan and Kotayk, 2004-2005 (in USD)

Number of Household Members	Yerevan 2004		Yerevan 2005		Kotayk	
	w/o children	with children	w/o children	with children	w/o children	with children
1	70.5		63.3		39.8	
2	52.9	35.9	64.4	44.2	44.5	30.3
3	55.3	58.6	48.9	71.9	41.2	31.9
4	50.6	48.0	66.6	49.1	46.4	32.7
5	38.1	38.5	52.9	38.9	36.4	29.8
6	47.2	29.1	37.0	38.8	56.5	24.3
7	28.0	31.2		36.4	32.4	28.5
8		24.4		30.2		20.8
9		22.0		27.0		18.6
10		20.1		30.8		28.6
11		11.2		38.3		35.2
12		18.3		36.6		22.4
13		18.9				13.5
14						6.9

Source: CRRC-Armenia Data Initiative 2004-2005, own calculations

Nearly all the CRRC-Armenia surveyed households perceive themselves as more poor than non-poor. Households without or having less than 4 children inclined to feel belonging to the middle-middle to higher-middle social class, while those having more than 4 children position themselves in the lower-middle social class. In general, with the increase of the number of children in the household the feeling of being in poverty increases and recognition of belonging to a lower social class strengthens (see Table 3).

Table 3.
Self assessment of economic condition and social strata of h/h

	Yerevan				Kotayk	
	2004		2005		2005	
	economic condition*	social strata**	economic condition	social strata	economic condition	social strata
Families with: no children	3.60	2.99	3.58	2.48	3.74	3.00
less than 4 children	3.77	3.34	4.11	3.70	3.68	2.96
4 and more children	4.00	2.14	3.75	2.25	4.10	2.06

Source: CRRC-Armenia Data Initiative 2004-2005, own calculations

Note: *1 being very good and 5 very poor, ** 1 being the lowest and 5 the upper levels

Table 4 illustrates that the frequency of taking loans, credit, or debt in order to meet their family needs increases parallel to the number of children in the family.

Table 4.
Share of families ever taken loans (in%)

	Yerevan		Kotayk
	2004	2005	2005
Families with: no children	15.3	14.6	27.0
less than 4 children	22.7	26.0	40.1
4 children and more	28.6	50.0	45.2
Total	19.1	21.1	36.2

Source: CRRC-Armenia Data Initiative 2004-2005, own calculations

Source: CRRC-Armenia Data Initiative 2004-2005, own calculations
Human Poverty - Health and Education

Health: Poor health status of people can be the result and reason of poverty. Poor people are in a vicious circle: sick people are more exposed to poverty, meanwhile those who are poor are more vulnerable to diseases and disability. In Armenia, health and education status have a significant influence on the perception of households on their overall socio-economic status. Households having a sick member are more likely to perceive themselves as poor than similar households with no sick members (SSPA, 2006, p.183).

The highest priority need of households in Armenia (2005) was healthcare, better nutrition being the next. There are inadequately met needs which are “more characteristic for the poor” healthcare, better nutrition and dwelling, as well as repaying debts, and another set of unmet needs that are “more characteristic for the non-poor” investments in own business, education, purchasing property, recreation and entertainment (PPPPA, 2005, p.81).

Table 5 shows that healthcare is such an urgent need that households took loans in order to gain access to the services in 2004 and 2005. The second priority purpose for which households took loans is the payment for education.

Table 5.
The main purpose of taking loans (in %)

	Yerevan		Kotayk	
	w/o children	with children	w/o children	with children
business expenses/	2.1	10.6	9.4	11.7
education	8.3	16.3	10.9	15.1
purchase/ renovation of a house	8.3	6.7	9.4	11.7
medical care	31.3	24.0	32.8	44.9
capital goods	8.3	6.7	10.9	10.2
loans/debts/credits payback	2.1	3.8	9.4	12.7

Source: CRRC-Armenia Data Initiative 2004-2005, own calculations

About the poor health at birth in Armenia indicates the increase in the share of low weight births, which increased from 5.6% to 8.2% (1980-2002) and then dropped to 7.0% in 2005 still being very high. In 1980-2000, the incidence of anemia among the pregnant increased by more than fourteen times: from 1.1 to 15.7%. Afterwards thanks to taken by the Armenian Government measures the indicator dropped to 10.7%, though again being very high (Pachi, 2002: pp. 129-130,134; TransMonee:6; HA, 2005: p. 181). Unfortunately, recently active tuberculosis quickly has spread also among juveniles. Morbidity by active tuberculosis of 0-14 (15-17) age children increased by 1.4 (3.2) times during 1990-2005 and reached 38.8 per 100,000 children of the respective age (HA, 2005, p. 67).

Education: In Armenia, the economic activity increases along with the level of education. The highest economic activity was recorded among those having post graduate and doctoral degrees (89.5%), and those having higher education (80.2%). Average indicator of economic activity among the surveyed was 69.5%, with the smallest level of economic activity (17.0%) demonstrated by those with elementary education (EPEAA, 2002, p. 67). The households with better educated heads and spouses are less likely to feel poor: the higher is the level of attained education the larger is the deviation from feeling poor. Households headed by university degree holding individuals (or whose spouse has at least some tertiary education) assess their economic condition as being in poverty at 12.9% less than the general surveyed population. Nonetheless, high level of education does not always guarantee well-off life: among those having higher education 19.5% were poor and 2.6% were very poor compared to total indicators 33.5% poor and 6.1% very poor in 2004. Since 1998/1999, extreme and general poverty has dropped most of all among those Armenians who possess mid level specialization and/or university degrees. The share of poor with tertiary education declined by 1.7 times, and the proportion of very poor dropped 5.2 times (SSPA, 2006, p.57).

The pre-school education is the primary level of the educational system in Armenia. During soviet times, wide network of very developed pre-school educational system substantially contributed to the effective functioning of the primary and then secondary schooling. On the other hand, it provided the opportunity for parents, especially women, to enter the labor market. During the transition period the pre-school educational system has undergone significant changes. During soviet times, wide network of very developed pre-school edu-

cational system substantially contributed to the effective functioning of the primary and secondary schooling. Meanwhile, it provided the opportunity for parents, especially women, to enter into the labor market. During the transition period the pre-school educational system has undergone significant changes: particularly from 1991 to 2004, the set of public pre-school institutions (PSI) shrieked 1.7 times (from 1069 to 623) and the number of children enrolled in these institutions reduced by 3.0 times (from 143,500 to 47,791). In 2005, 21.5% of preschool age children were enrolled into the PSIs, as compared to 39.0% in 1991 (NGOAR: 12; SCA, 2005, p. 7, 13, 17)).

In general, from 1989 to 2003, pre-school enrollment rates (as % of 3-6 years old population) dropped from 48.5% to 27.8%. Primary school (children aged 7-14) enrollment rates decreased from 95.5% to 87.2%. Total upper secondary school (children aged 15-17) enrollment rates dropped from 67.5% to 49.2%. Most of these 15-17 years old children not attending schools have no occupation and hence nearly 30% of 15-17 years old teenagers are not engaged in any kind of creative and development programs, which eventually will turn against them when they start seeking jobs. Vocational/technical secondary enrollment rates declined from 31.6% to 12.1%. Meanwhile, it is interesting to observe that during this time period higher educational enrollments (gross rates, percent of population aged 19-24) increased from 19.3% to 22.7% (by 17.7%) (TransMonee, 2005).

While the enrollment rates in basic education are pretty high (95%) and they do not differ substantially across consumption quintiles, the enrollment rates in high school are substantially lower - about 70.0% nationally and the difference between poor and better off households becomes almost 10%. The enrollment rates in preschool/tertiary institution are about 41.0/38.0% among students from the richest quintile, and only 19.0/5.0% for those from the poorest households. Irrespective of socio-economic status of the h/h, the enrollment rates by age and sex are very similar for 7-14 age group. At age 15 (the end of general education) there is a sharp decline in the enrollment, especially among the poor and it drops even sharper at age 16. Nonetheless, some 20-30% of 17-20 years old young people from the poorest quintile enroll into a tertiary level educational institution and hence tend to receive specialty that hopefully will shift them from poverty (SSPA, 2006, p. 98, 120).

Juvenile Crime: Crime not only harms individuals, it also hampers the country's social, economic, and judiciary development as well as jeopardizes the most important societal values. Most children

who come into conflict with the law do so for minor, non-violent offences and in some cases their only "crime" is that they are poor, homeless and disadvantaged. Juvenile crime is not a particularly dramatic one in Armenia: the share of 14-17 age offenders among the disclosed ones was 5.4, 5.6, and 5.7% in 2003-2005 (SCA, 2003: 156; SCA, 2004: 258; SCA, 2005: 158). Some 0.8% of 14-17 years old adolescents committed a crime in 2003 and 2004. In most cases the juveniles engage in light "traditional" crimes (theft, larceny, robbery, hooliganism, bodily harm). Most of the juvenile crime (67.3% in 2003) is committed by those who don't work or study or by socially marginalized and poor adolescents (SYA, 2005: 183).

Juvenile crime has specific causes: one of those being longer "transition" period from adolescence to adulthood. Thus if 50% of young people aged 18 had jobs in 1987 in Europe; in 1995 the indicator was attained at 20 (LHDR, 1999: 147-148). This extended period of social maturation brings with it an extended exposure to the danger of criminal involvement. In Armenia, the 50% employment is achieved by 30-34 age group people (25-29 age males) (LMA, 2004, 18). Another reason for the increase in juvenile crime is expanded female employment and absence of affordable social services. Women, whose unwritten "social role" in Armenia is care after and upbringing of children, with increased employment and reduction in the number of child care institutions and youth activity centers, left the youngsters somehow out of care. Alongside, currently children have a significantly greater exposure to the "fruits" of the adult world. They have direct access to information mostly via TV programs and Internet, which are full of violence, criminal, and erotic films and stories. Images of violence promote the notion that only the physically strongest win in this world. The image of such a winning "macho" is upheld also by non punishment of socially sound criminal cases (including cases of corruption). Dual standards in the society, especially in the sphere of education where the minors have much direct relation, creates distortions in child behavior.

Child Labor: In Armenia, some 5.1% of 7-17 years old children work as per child's answer, while as per parents' answer the share of working children was 4.5% (7.1% boys and 1.8% of girls). In total, 63.6% of working children stated that the main cause of working was the acute financial hardships faced by their families. Dominant share of children were performing housework and every third child was paid for the work performed (RLFCLAS, 2004, p. 39, 56).

Nearly all employed children work on oral agreement and are not registered with an employer and hence neither their labor nor social rights are protected. Article 140 of the Labor Code envisages shorter working hours per week: 24 hours for from 14 to 16 years old working children and 36 hours for those working children that are elder 16 and smaller 18. Nonetheless, the Survey revealed that 33.8%/22.1% of working children spend more than 25/35 hours at work, which of course implies that they spent more time at work than at school, and 7.7% of working children work more than 56 hours a week, which is too much even for adults (see Figure 1).

Figure 1. Hours Worked by Employed Children in a Week
Labor Force and Child Labor in Armenia, NSS, 2004, p. 72

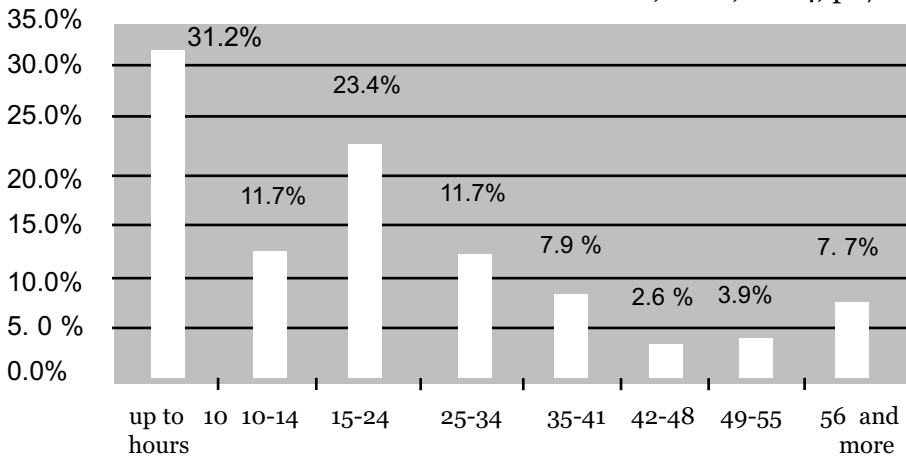


Table 6 illustrates the most important factor for getting a job. The majority of respondents thinks that the most powerful means to get (have) a job is to have good connections. The weighty share of the factor of “money” in getting a job, we think, is mainly associated with self-employment opportunities and it might also be related with the possibility of getting a job through pleasing the employer.

Meanwhile, it is worth noting that subtotal of the factors “Hard work”, “Education”, “Professional abilities, talent”, and “Work experience”, which in effect supplement each other and comprise three factors that shape professional attainments, generally outweigh the factor of “Connections”. This means that all these critical factors that though being diminutive separately, together act as counterweigh to the factor of “Connections”.

Table 6.
Most important factor for getting job (in%)

	Yerevan		Yerevan		Kotayk	
	2004		2005			
	h/h w/o children	h/h with children	h/h w/o children	h/h with children	h/h w/o children	h/h with children
Hard work	5.9	5.4	3.5	5.3	4.1	9.5
Education	8.6	7.7	7.7	8.9	3.9	9.5
Professional abilities, talent	4.8	5.4	4.3	4.8	2.9	5.9
Work experience	1.0	1.3	1.5	1.9	2.8	4.5
Subtotal:	20.3	19.8	17.0	20.9	13.7	29.4
Connections	19.3	19.2	19.4	22.2	12.1	23.3
Luck	0.9	1.1	4.8	4.7	1.9	4.4
Money	4.7	6.7	3.3	6.0	3.6	10.8
Health	1.3	1.5	0.1	0.0	0.3	0.1
Being young and female	1.0	1.1	0.3	0.1	0.0	0.1
Aspiration, desire	0.2	0.3	0.0	0.3	0.0	0.1
New jobs	-	-	0.1	0.4	-	-

Source: Own Calculations on the basis of CRRC-Armenia Data Initiative 2004-2005Dataset

Conclusions and Recommendations

According to statistics, nearly every third resident of our country is poor and about 7.5% of the population lives below the minimum subsistence level. Unemployment of parent(s), loss of a breadwinner, large size of the family and other social risks result in a desperate situation for numerous children. In Armenia, the presence of two and more children under 14 in a household increases the probability of being poor by 11.4%, in 2004 (SSPA, 2004, p. 41, 122). Social welfare

benefits have not been providing the needy children with adequate resources enabling them to sustain decent standards of living allowing them to cumulate skills and knowledge enough for shifting from poverty, and taking full participation in customary for Armenian society activities.

In developing countries with poor economies children represent the greatest poverty risk. Poverty is a blight denying poor children the opportunities that others quite often take for granted. Recognizing that a poor child with no future prospectus is a huge loss for the society and nation, reducing child poverty and laying ground for building up human capital should be at the focus of state and society attention. In this regard it is critical to analyze the social-economic conditions of households with children, to measure child poverty and social cost of living childhood in poverty, and develop policies to eradicate child poverty. Sustainable economic growth for Armenia is possible only through human capital accumulation through educational attainments (Manasyan & Jrbashyan, 2002, p. 11).

Extending the availability of these services to poor children is vital for the anti-poverty strategy: good childcare not only has the potential to improve educational and developmental outcomes, protecting children from some of the impacts of poverty, but it also allows parents to enter employment or to raise their hours of paid work to increase earnings. It is nice to state that the government of Armenia has adopted a UNICEF-endorsed strategy to increase pre-school enrolment and enhance access to early childhood development services.

The Government of Armenia has introduced a new order of poverty family benefits that are supportive to redistributing more financial assistance to families with children. Up-rating benefits and tax credits is vital to maintain their relative value. To make real progress over time, the value of benefits to children ought to rise above the rate of the fastest growing of prices or earnings. Recent focus on benefits for children has been welcome but children's benefits do not act in isolation. It is the family income that must be considered and so adult benefits cannot be ignored.

Recent reductions in poverty rates are welcome, but poverty still remains high especially among children. Tackling child poverty must be a cornerstone of building a progressive, modern society, both decent and successful. High inequality and poverty rates threaten not only the upbringing of children but our social and economic wellbeing and development.

The importance of eradicating child poverty is evident and is based on the manifestation of negative impact that poverty has on childhood and on later life opportunities. The state and society should take the challenge of eradicating of childhood poverty as soon as possible. Child poverty programs should ensure all children have full access to the development and health programs.

Quite often the hidden costs of education (e.g. trips, activities, meals, and “school support” contributions) push out poorer children from their schools. This especially happens in high classes, and many children start to work to support their families. To this contributes also non-adaptability of school curricula to the market demands: secondary school programs are more oriented to preparing the children to pass university enrolment exams not at providing them life skills. Therefore, the school programs should be substantially revised. Meanwhile, the government must intervene to make school a positive and protective environment for all children especially the poor ones, reducing the impact of poverty particularly through substantial contribution in the form of providing books, subscription and inclusion in extracurricular activity groups and sports clubs, or provision of season tickets to museums to the poor children.

Despite high pace of economic growth, the unemployment rates decrease very slowly. On the other hand, many of the poor children live in households with one or more parent has no paid work. Work on its own does not guarantee adequate income because of very low wages. Public policies should concentrate not only on creating just new jobs but better jobs providing sufficient means for decent living. To this will support also the increasing of the minimum wage in the economy above the minimum consumption basket.

In order to attain higher degree health status of the population, particularly increased life expectancy at birth and at working/reproductive ages, the limited means of the state budget should be more targeted on programs that should be selected on the basis of their long-run public impact; namely invest in early childhood health care (including pregnancy care and nutrition) and educational programs: Early Childhood Development (ECD) programs as well as in vocational and higher professional quality education that ensues competitiveness of their graduates in the labor market.

< Education is one of the most effective means for having young people productively occupied and providing means to build up high competence for finding not just a job but better job. However, if the education does not meet the labor market needs, schools will be abandoned by many students.

< Creation of new and strengthening of existing vocational schools that prepare specialists of high demand specialties, will bring children back to education

< Establishment of military schools/colleges for adolescents, will bring many children into order

< Expansion of the network of extracurricular activity centers (e.g. Youth Centers) for the youth and support the children from poor families to participate in the activity classes that the child has a talent for.

< Better and coordinated work with the Armenian Apostolic Church, might keep children within the boundaries of national and human values.

< Involvement of asocial teenagers in above mentioned institutions as well as in sports schools, especially team sport groups, will keep them busy and out of antisocial conduct and hence prevent criminal behavior.

< Promote policies of social contracting with non-commercial organizations for child care programs, envisaging special programs for vagrant and beggar children.

< Summer recreational programs: a great number of children will be provided with some means of productively spending their free time, especially during summer holidays.

The strategic approach in fighting child poverty should combine direct government involvement in mitigating the negative influence of poverty on children with measures to advocate people lift themselves out of poverty through work. In the case of child poverty, covering poor children with quality state funded early childhood development programs as well as raising lone parent employment are especially essential. The programs should assure that all children have the best possible start in life and to provide equal opportunity so that each child can fulfill his/her potential.

The importance of eradication of child poverty is evident and is based on the manifestation of negative impact that the poverty can have on child's future opportunities. Child poverty programs should ensure all children have full access to high quality health care, development and educational programs. Keeping children and young people productively occupied is one of the most efficient ways of preventing juvenile antisocial behavior. In general, contributing to revitalization of PSIs and supporting the children from poor families to enroll in the high quality ECD programs and youth activity centers, taking measures to increase enrolment of vulnerable children into the

schools (especially vocational educational establishments) would ensure competitiveness of these children in the labor market at their adulthood and contribute to the irreversible eradication of poverty in Armenia.

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The European Union and Transcaucasus (South) Countries: On a Cross-road

Munir Hussain

Abstract

This study is an attempt to analyze EU policies towards the Southern Caucasus that deals basically with the changes in EU policies from 1999 to date. The EU policy towards the region can be analyzed in two phases. First, the study will discuss the EU support during the 1990-1999 phase in relation to the economic and technical aid offered to the region. Second, the study attempts to analyze the EU's active policies since 1999 in terms of changes in EU policies as well as the causes of this change and the importance of the region for the EU. The study will conclude by asserting that political and economic stability cannot be reached without solving the problems in the region. In this context, the importance of the EU in the establishment of peace and stability in this framework are also discussed.

ევროგაერთიანება და ტრანსკავკასიური ქვეყნები გზაჯვარედინზე

მუნირ ჰუსეინი

ნაშრომი წარმოადგენს ევროგაერთიანების პოლიტიკის ანალიზს სამხრეთ კავკასიასთან დაკავშირებით. კვლევა მოიცავს პერიოდს 1999 წლიდან დღემდე. ევროგაერთიანების პოლიტიკა მოცემული რეგიონის მიმართ შესაძლოა განვიხილოთ 2 ფაზაში: პირველ ფაზაში წარმოდგენილია აღნიშნული რეგიონის მიმართ ევროგაერთიანების ტექნიკურ-ეკონომიკური დახმარება, 1990-1999 წლებში. მეორე ფაზაში განხილულია ევროგაერთიანების პოლიტიკა 1990 წლიდან, ევროგაერთიანების პოლიტიკის ცვლილების, ცვლილებათა მიზეზების კვლევისა და ევროგაერთიანებისათვის კონკრეტული რეგიონის მნიშვნელობის თვალსაზრისით. აღსანიშნავია, რომ სამხრეთ კავკასიის რეგიონში პოლიტიკური და ეკონომიკური სტაბილურობა რეგიონშივე არსებული პრობლემების მოგვარების გარეშე შეუძლებელია. აღნიშნულ კონტექსტში, ნაშრომი განიხილავს ევროგაერთიანების როლს მშვიდობისა და სტაბილურობის დამყარებაშიც.

This study is an attempt to analyze EU policies towards the Southern Caucasus. The EU's interest in the region in the wake of independence remained basically in the economic sphere, limited especially to economic aid, since economic aid was thought to be sufficient for the solution of the region's problems. With the Partnership and Cooperation Agreement concluded in 1999 in Luxembourg, the EU interest in the region has changed, as the EU has decided to enhance its political profile in the region in addition to its economic interests. This study deals basically with the changes in EU policies from 1999 to date.

The EU policy towards the region can be analyzed in two phases. First, the study will discuss the EU support during the 1990-1999 phase in relation to the economic and technical aid offered to the region. This part focuses on the EU's choice to take a backseat in issues relating to the solution of regional problems and to the establishment of stability in the region. Second, the study attempts to analyze the EU's active policies since 1999 in terms of changes in EU policies as well as the causes of this change and the importance of the region for the EU. In this context, the impacts of the EU policies on South Caucasia are also within the context of this discussion. The study will conclude by asserting that political and economic stability cannot be reached without solving the problems in the region, and instability will eventually threaten European security and stability in the long run. In this context, the importance of the EU in the establishment of peace and stability in this framework are also discussed.

What the South Caucasus region is?

Before going into detail South Caucasus we have to know slightly geography of Caucasus or Caucasia. This is a region in Eurasia bordered on the south by Iran, on the southwest by Turkey, on the west by the Black Sea, on the east by the Caspian Sea, and on the north by Russia. The Caucasus includes the Caucasus Mountains and surrounding lowlands.

The Caucasus Mountains are commonly reckoned as a dividing line between Asia and Europe, and territories in Caucasia are variably considered to be in one or both continents. The northern portion of the Caucasus is known as the Ciscaucasus and the southern portion as the Transcaucasus. The highest peak in the Caucasus is Mount Elbrus (5,642 m) which, in the western Ciscaucasus in Russia, is generally considered the highest point in Europe.

The Caucasus is one of the most linguistically and culturally diverse regions on Earth. The nation-states that compose the Caucasus today are the post-Soviet states Georgia, Armenia, and Azerbaijan; and various parts of Russia and Iran. The Russian divisions include Krasnodar Krai, Stavropol Krai, and the autonomous republics of Adygea, Kalmykia, Karachay-Cherkessia, Kabardino-Balkaria, North Ossetia, Ingushetia, Chechnya, and Dagestan. Three territories in the region claim independence but are not generally acknowledged as nation-states by the international community: Abkhazia, Nagorno-Karabakh and South Ossetia (Wikipedia, Caucasus).

South Caucasus, also referred to as Transcaucasia or Transcaucasus, is the southern portion of the Caucasus region between Europe and Asia, extending from the Greater Caucasus to the Turkish and Iranian borders, between the Black and Caspian Seas.

The area includes the Colchis Lowland, Kura Lowland, Talysh Mountains, Lenkoran Lowland, Caucasus Minor, and Javakheti-Armenian Uplands.

All of Armenia is in Transcaucasia; the majority of Georgia and Azerbaijan, including the exclave of Naxçivan, fall within this area. The countries of the region are producers of oil, manganese ore, tea, citrus fruits, and wine.

In Western languages, the terms Transcaucasus and Transcaucasia are translations of the Russian *zakavkazje* meaning “the area beyond the Caucasus Mountains”, i.e., as seen from the Russian capital (analogous to the Roman terms *Transalpine* and *Transpadania*).

The region remains one of the most complicated in the post-Soviet area, and comprises three heavily disputed areas - Abkhazia and South Ossetia in Georgia, and Nagorno-Karabakh in Azerbaijan (Wikipedia, South- Caucasus).

Burning Issues of South caucasia and their background

In early 1990s the South Caucasus states Armenia, Azerbaijan and Georgia gained their independence and sovereignty. Since then these states have chosen the path of democratic governance (adoption of Constitution, division of powers, etc.), civil society (development of the NGO sector and independent mass media) and liberal economy (free market). However, currently Armenia, Azerbaijan and Georgia are in an acute period of political, economic, social and cultural readjustment. There have been enormous qualitative and quantitative

changes in society since early 90s due to several key factors, such as:

- < Inevitable but still severe post-Soviet social-economic collapse related with wide-spread corruption;

- < Armed conflicts between Armenia and Azerbaijan over Nagorno Karabakh, and in Georgia (Abkhazia and South Ossetia), which reached high-intensity stage and later grew into a protracted “frozen” stage;

- < Humanitarian crisis characterized by the vast flow of refugees and IDPs in the aftermath of regional conflicts as well as the exodus of population (including intellectual capital) to abroad for better opportunities and life conditions;

- < Process of democratization and institutional reforms of political, military, economic and social systems in compliance with international standards and their gradual integration into the international community;

- < Development of various strategically important economic projects with vast international assistance and support. The projects based on the region's key strategic location (Transport Corridor Europe-Caucasus-Asia) and energy resources (oil/gas resources along with pipeline routes, such as BTC and SCP).

The issues discussed above are, the most arduous challenge appeared to be armed conflicts that took up enormous amount of national human and economic resources, on one hand, and aggravated number of socio-economic and political hardship, on the other. After the ceasefire agreements over the conflicts were reached (over Nagorno Karabakh in May 1994; over Abkhazia in July 1993 - yet broken in September 1993 and regained in April 1994, and over South Ossetia in June 1992), much effort has been spent by the international community towards the final resolution of the conflicts, which mainly faced the hard-edged and polarized approaches of the conflicting parties. Also, these conflicts have had their deep impact on the societies awaking latent negative feelings, strengthening existing negative stereotypes and nationalism in general.

As a result of Azerbaijani-Armenia conflict over Nagorno Karabakh, Georgian-Abkhazian, and Georgian-South-Ossetian conflicts the following issues have become key factors for the development of South Caucasus states:

- Unresolved conflicts still decisively influence the political life of Armenia, Azerbaijan and Georgia and hamper the process of their further democratization; military structures have gained an influential role in Armenian society, pushing back other democratic institutions and negatively affecting the country's democratization process in general;

< The regions uncontrolled by federal authorities have provided a solid ground for corruption, lack of transparency and isolation of civil control over the decision making process;

< The conflicts in Georgia have hardened the relations with Russian Federation. Unresolved conflict over Nagorno Karabakh breeds tensed relations between Armenia and Turkey, which altogether seriously slows down the process of integration in the region;

< Hundreds of thousands of refugees and IDPs flown from the conflict zones, and the issue of their resettlement are still a serious social problem (GPPAC, "Regional_Action_Agendas").

EU Interests in Caucasus stability

There are a few reasons why the South Caucasus has special importance for the EU.

EU's growing interest in diversification of the energy supplies, first of all gas, pushes it towards closer cooperation with the Caucasus. In the coming decade the region will experience major changes coming from the significant oil and gas production and transportation. In Azerbaijan the expected revenues from the fields in the Caspian according to estimates, in the next few years, with peak of production in 2012, will amount to 160-180 billion dollars (compare to the current state budget of 4 billion dollars). The oil pipe-line Baku-Tbilisi-Jeyhan, construction of which was completed in 2005 started to deliver "big oil" from the major offshore field Azeri-Chirag-Guneshli from the Caspian to the European markets. The gas from the field Shahdeniz in the Azerbaijani sector of the Caspian is expected to be delivered to the European consumers upon the construction of the pipe-line Baku -Erzerum in 2006, thus contributing to the diversification of the energy supplies for Europe, who has been strongly dependent on Russian gas supplies. The convenient geographic location on the cross roads of major East-West transportation routes is making the Caucasus attractive in trade, military and communication terms. Azerbaijan and Georgia, connecting exits to two seas - Caspian and Black Sea provide a convenient transit from the Central Asia oil and gas resources in Kazakhstan, Turkmenistan to Europe.

On the other hand, the Caucasus states, previously being weak and unstable, are now capable of providing security through cooperation with their European and American partners in the joint programs on fight with terrorism, trafficking, in peacekeeping. All this justifies EU greater involvement in the region. For the EU the main rationale

behind the European Neighborhood Policy (ENP) is in development of the “zone of prosperity and a friendly neighborhood - a “ring of friends”, with whom the EU enjoys close, peaceful and cooperative relations”. The Strategy of European Neighborhood Policy says, that “the European Union has a strong interest in the stability and development of the South Caucasus”.

Definitions, made mainly in the terms of real interests, however, often put some limitations of the understanding of the significance of the region and lead to underestimation of the degree of closeness between the EU and South Caucasus. The Caucasus has common borders with influential regional powers, such as Russia and Iran, who are in the focus of the international attention. The South Caucasus as a historical bridge between the cultures and civilizations and promoter of modernization farther to the East and the South bears no less significance for EU, than as an energy producer or military hub. Azerbaijan, the country with pre-dominantly Muslim population, has demonstrated a unique example of modernization, caused by the development of industrial capitalism in the 19th - early 20th centuries. The latter promoted transformation which resulted in political pluralism, development of liberalism and creation of the first democratic republic in the Muslim world in 1918, the reform influence of which extended to Iran, Ottoman Empire, Central Asia. The institutions of the pre-Soviet period appeared to be strong enough to survive totalitarianism, while the liberal traditions nowadays continue to survive post-Soviet autocracy in the form of political opposition, plurality of media and civil society. This indicates presence of a significant reform potential in the South Caucasus societies, which, if developed, can have a considerable influence on geographical areas extending the borders of the region and lead to the greater ring of friendly states with enduring and democratic stability (Alieva, 2006).

Instability in the South Caucasus is a threat to EU's security. Geographic proximity, energy resources, pipelines and the challenges of international crime and trafficking make stability in the region a clear EU interest. Yet, the unresolved Nagorno-Karabakh, Abkhazian and South Ossetian conflicts have the potential to ignite into full-fledged wars in Europe's neighbourhood. To guarantee its own security, the EU should become more engaged in efforts to resolve the three disputes. It can do so by strengthening the conflict resolution dimension of the instruments it applies. As the EU is unlikely to offer membership to Georgia, Armenia and Azerbaijan even in the medium term, it must identify innovative means to impose conditionality on

its aid and demonstrate influence. This is a challenge that Brussels has only begun to address (Europe Report, 2006).

The Southern Caucasus has severe problems waiting to be solved. First of all, the region is crowded with external actors. The region witnesses the conflicting interests of the neighbouring countries on the one hand and of the external powers on the other hand, thus making it even harder to establish stability in the region. Its geographic location makes the region a natural conduit for trafficking, smuggling and all kinds of organised crime. In this respect, any kind of destabilisation in the region may have an impact on the security of the European Union. Also, the continuation of the 'frozen conflicts' in South Caucasia jeopardises Caucasian security, prevents a unified response from regional states against outside threats (Svante, 1999,p.103), and prevents the development of prosperity, democracy, peace and stability. The EU and its member states seek economic objectives in the South Caucasus. The South Caucasus represents a micro region of the broader Caspian region and can consequently be considered an important area for the EU facing new energy needs, with a view to attempt to diversify its energy supplies.

Due to its geographic location, at the extreme edge of Europe, the South Caucasus could assume a key role of an energy corridor and direct trade channel between the East and West. Therefore, resolution of frozen conflicts can be seen as a prerequisite for securing energy export routes ("Caucasian Preconditions for the development of an integrated European Policy Towards the South Caucasus", 2004).

Georgia and Azerbaijan are willing to integrate with the West. Georgia's new leader, and its Prime Minister Zurab Zhvania, have expressed their wish to enter the EU on various occasions (Mikheil Saakashvili, 2004, p. 47; Zhvania, June 16). Georgia has a long way to go for EU membership. Azerbaijan and Georgia cannot fulfil the requirements of rapprochement with the West without solving the problems of Karabakh and of South Ossetia and the Abkhazia problems, respectively. Also, solving these problems will improve the integration of the regional states, the opening of borders, and possibilities for cooperation.

Democracy and human rights should be promoted. Eradicating corruption, strengthening the rule of law and human rights, alleviating poverty, are the directions toward which the countries need to channel their attempts. A compulsory condition for ensuring stability in the South Caucasus is the promotion of co-operation between the states of South Caucasus. Within the framework of the question, what can the EU do to promote cooperation in the region? (Demira, 2004 – 2005)

EU-South Caucasus: On a cross-road

The EU appeared on the South Caucasus scene in the early 90s. In the wake of the Rome Summit of December 1990, the EU launched the TACIS (Technical Assistance to the Commonwealth of Independent States) programme to sustain the economic reform and development process in the CIS countries and to support their integration to the world economy. After the summits held in Luxemburg on 28-29 June 1991, 9-10 December 1991 in Maastricht, and 25-27 June 1992 in Lisbon, more emphasis was put on the development of relations with the former Soviet republics. In this context, TRACECA (Transport Corridor Europe-Caucasus-Asia) and INOGATE (Interstate Oil and Gas Transport to Europe) were initiated under the TACIS programme. TRACECA (TRACECA; INOGATE), launched in 1993, aims at facilitating the countries' access to world markets by developing a transport and transit corridor. It is in fact the revitalisation of the ancient Silk Road.

In 1998, within the TRACECA framework, 12 states signed a multilateral treaty in Baku, regulating international transportation of people and goods (United States Energy Information Administration, 1998). For the countries within the programme, the TRACECA Project provides an alternative to the traditional and widely used Moscow route and hence bears strategic importance to present an alternative transportation route to Europe. Moreover, agreement was reached for the transportation of heavy-duty material through the TRACECA route and it was emphasised that this corridor is the shortest, fastest, and cheapest route from Asia to Europe. The technical support to be provided within the Programme was also sustained by the IMF, the EBRD and the World Bank (IBRD). INOGATE, launched in 1995, aimed to create a favourable environment for attracting private investment in the field of oil and gas and facilitating their transportation through the provision of technical assistance. A special emphasis was put on the rehabilitation of existing infrastructure (INOGATE Newsletter, 1999, p.1-2). At its first summit in 1999, an Umbrella Agreement was signed on the development of hydrocarbon transportation networks between the Caspian Basin and Europe across the Black Sea region. The agreement allows countries not covered by EU's TACIS programme to join infrastructure projects, and has so far been signed by 21 countries, including all the BSEC members except Russia. A secretariat for INOGATE was set up in Kyiv in November 2000 (Aydin, M).

Since 1992, the EU has provided just over a billion euros in assistance to the three states of the South Caucasus, distributed through a range of programmes as described above.

From 1992-2000, the EU allocated 317.78 million in grants to Georgia, as summarised in Table I. The EU has supported Georgia through a range of instruments such as the TACIS programme, ECHO Humanitarian Assistance, Food Aid Operation, Food Security Programme, Exceptional Humanitarian Assistance.

EU Relations to South Caucasus Countries

1. EU-Armenia Relations

The Partnership and Cooperation Agreement (PCA) with Armenia, initially signed in April 1996, has been the legal framework for EU-Armenia bilateral relations since it entered into force at the start of July 1999. In this context, respect for democracy, principles of international law, human rights, and the principles of the market economy are the essential elements on which the EU-Armenian partnership is based. The PCA provides a framework for wide-ranging cooperation in the areas of political dialogue, trade, investment, economic, legislative, and cultural cooperation.

The various joint institutions set up under the PCA (Cooperation Council, Cooperation Committee, Subcommittee on Trade, Economic and Related Legal Affairs, as well as the Parliamentary Cooperation committee) have functioned smoothly and have ensured a regular political dialogue. Cooperation Councils have been held annually since 1999 (the latest in Brussels in September 2004), whilst the latest bilateral meeting between the two sides was an informal EU Troika Meeting with Armenia on 13th December 2005.

In July 2003, bilateral relations between the EU and the dialogue between the two sides were further strengthened by the appointment of Ambassador Heikki Talvitie as the first EU Special Representative for the Southern Caucasus. His mandate includes assisting the EU in developing a comprehensive policy towards the region, and supporting the conflict prevention and settlement mechanisms currently in operation there.

The decision taken by the European Council on 14th June 2004 to incorporate the countries of the Southern Caucasus into the framework of the European Neighbourhood Policy, is indicative of the EU's willingness to extend cooperation with Armenia beyond that provided for under the existing framework of the PCA. Armenia is

invited to enter into closer political, economic and cultural relations with the EU, to enhance cooperation, and to share responsibility for conflict prevention and resolution in the surrounding region. The Union offers the prospect of a stake in its internal market, of heightened bilateral trade, and of further economic integration.

As a first step in this direction, a country report assessing current progress in Armenia towards political and economic reform, was published on 2nd March 2005, highlighting areas in which bilateral cooperation could feasibly and valuably be strengthened. Since then, work has begun on drafting the ENP Action Plan for Armenia, which sets jointly defined priorities in selected areas for the next five years. Formal consultations on the Action Plan were opened in Yerevan on 28th November 2005 and are currently ongoing (European Commission External Relations, October 27, 2008).

Political relations:

The EU has an interest in Armenia has developed in the context of a politically stable and economically prosperous Southern Caucasus. In this respect, the conflict with Azerbaijan over Nagorno-Karabakh (NK) remains the major impediment to development in the country and contributes to regional instability. It is also hoped that the opening of EU-Turkey accession talks will help to facilitate a rapprochement between Turkey and Armenia, ultimately leading to a reopening of the border between the two countries.

In the context of the European Neighborhood Policy, the EU is committed to developing an Action Plan in consultation with Armenia which both reflects the specificity of the country, and contains concrete goals and actions to be achieved in the short and medium term.

Trade

The EU is Armenia's primary trading partner, accounting for 38.7% of Armenian exports and 34% of its imports in 2004, around three times higher than US-Armenia trade. In absolute terms, however, bilateral trade between the two is extremely limited, amounting to just €474 million in 2003. It is also extremely concentrated and dominated by the trade in precious stones which are imported, polished, and subsequently re-exported to the EU. These account for 63% of EU imports from Armenia, and 34% of EU exports to the country. The EU

also imports base metals, whilst its exports are dominated by machinery, equipment, and vehicles.

Assistance

EC assistance to Armenia since 1991 amounts to more than 380 million. Humanitarian assistance (notably ECHO and Food Aid Operations through the European Agricultural Guarantee and Guidance Fund, EAGGF) has accounted for nearly €120 million and has contributed to alleviating the very severe humanitarian situation in the mid-1990s. TACIS national allocations and the Food Security Programme each represent around € 100 million.

TACIS Programme

With the approval of the Country Strategy Paper in December 2001, TACIS assistance to Armenia in the period 2002-2006 is focusing on continued support for institutional, legal and administrative reform as well as on support in addressing the social consequences of transition. TACIS is providing essential assistance to the implementation of Armenia's Poverty Reduction Strategy approved in 2003. The 2002-2003 Action Programme (€ 10 million) is currently being implemented. The 2004-2005 Action Programme (also 10 million) has recently been agreed.

Armenia also participates in Tacis regional programmes like TRACECA, INOGATE and the Regional Environmental Centre for Southern Caucasus, based in Tbilisi, Georgia.

Macro financial assistance

In December 1998, Armenia settled the remaining amount of its debt to the Community. The country subsequently benefited from a new Macro Financial Assistance package of a €28 million loan and a total grant of €30 million to be disbursed over the period 1999-2005, subject to macro-economic performance and structural reforms. In the context of the IMF-supported economic programme, this assistance has contributed to the sustainability of Armenia's external debt.

Food Security Programme (FSP)

The Food Security Programme (FSP) has provided significant budgetary support to key agricultural and social sectors in Armenia and has thus played an important role in tackling poverty in Armenia,

notably through its support for family allowances and child care. The combination of budget support and technical assistance through FSP (with complementary TACIS technical assistance) has also enabled significant reforms to be made in the field of land reform and public finance management. Implementation of FSP has been very successful and further such support is envisaged for 2005-2006 (€ 21 million) notably to assist Armenia in continuing to implement its Poverty Reduction Strategy.

Humanitarian Assistance (ECHO)

ECHO has been present in the NIS region since the early 1990s, in accordance with its core mandate (humanitarian assistance in response to natural or man-made disasters). From 1993 to 1999, ECHO's operational funding in the southern Caucasus has been considerable, with € 64.255 million of humanitarian aid going to Armenia, € 83.34 million to Georgia and € 82.96 million to Azerbaijan.

ECHO's withdrawal from post-emergency programmes in southern Caucasus started in 1996 and was completed in 2000 with a last allocation of € 3.855 million for the three countries. In 2000 and 2001 ECHO provided a total € 1.5 million as contribution to alleviating the consequences of the drought in Armenia. European Initiative for Democracy and Human Rights (EIDHR)

The EC European Initiative for Democracy and Human Rights (EIDHR) Programme launched its activities in support of NGOs in Armenia in 2003 with the objective of promoting and protecting human rights and democratization as well as conflict prevention and resolution.

Table 1

Total EC grants to Armenia since 1991 (in addition to the figures below, Armenia benefits from grants under the TACIS Regional Programme)

	1991-1993	1994	1995	1996	1997	1998	1999	2000	2001	2002-2003	2004-2006	Total M €
Tacis National Allocations	28.90	-	6.00	14.00	-	10.00	-	10.00	-	10.00	20.00	98.90
Nuclear Safety	-	-	-	10.00	10.00	-	-	11.00	-	-	7	29.00
ECHO	10.40	19.90	23.96	4.97	1.96	1.60	2.30	1.10	2.10	0.5	-	68.79
EAGGF	-	-	34.00	13.20	-	-	-	3.00	-	-	-	50.20
FSP	-	-	-	13.00	6.00	12.00	10.00	10.00	10.00	20.30	21.00	102.30
Macro financial assistance (disbursed)	-	5.70	-	-	-	8.00	4.00	-	-	11.00	7.00	35.70
Aid against effects of Russian financial crisis	-	1.50	-	-	-	-	-	-	-	-	-	1.50
Total M €	38.30	25.60	63.96	55.17	8.96	31.60	17.80	35.10	12.10	41.80	55.00	386.39

Selected economic and social indicators

General

Area: 29,700 km²

Population: 3,000,000 (World Bank, 2004)

Life Expectancy (2003): 75 years (WB, 2003)

Population growth rate: -1.2% (1999), -0.6% (2002), -0.4% (2003)

Population below poverty line: 32% (2003)

Economy

Nominal GDP 2003 (US\$): 2 billion

GDP per capita 2003: € 797

GDP Breakdown by sector value added (2002):

Agriculture: 26,2 %

Industry: 36,8 %

Services: 37 %

Real GDP growth rate: 2002:12.9%, 2003:13.9%, 2004: 10.1%

Inflation: 2002: 1.1%, 2003: 4.8%, 2004: 7.0% (European Commission External Relations, October 27, 2008).

2. EU - Relations with Azerbaijan

EU-Azerbaijan Trade Relations

Azerbaijan is the EU's largest trading partner in the Caucasus although this primarily relates to cotton, oil and gas. Since 1993 total trade with the EU has grown steadily. In contrast trade with the CIS states has fallen over the past years. Large scale privatisation is required and further economic diversification is essential. Azerbaijan holds a strategic location between the EU and Central Asia. Development of the TRACECA trade route will provide a cornerstone for future economic growth. The EU helped prepare the multilateral transport agreement which was signed at the Baku Summit in September 1998. Trade in textiles is covered by a specific agreement although the volume of trade with the EU is currently negligible.

A high-level dialogue on energy and transport in the Black Sea and Caspian Sea was launched at the Commission's initiative with the November 2004 Baku Ministerials, aimed at the development of a regional energy and transport market and its progressive integration with the EU market.

The fifth meeting of the Trade, Investment and related legal issues sub-committee was held in April 2005, where there was a substantive dialogue allowing an open and frank exchange of views. On 11 February 2005 the first meeting of the new sub committee on Energy and Transport was held in Brussels; its creation was a confirmation of the importance paid by both the EU and Azerbaijan to such strategic issues.

See for further information on bilateral trade the Commission's external trade website.

EU-Azerbaijan Political Relations

The Summit held in Luxembourg on 22 June 1999 marked the entry into force of the Partnership and Cooperation Agreement. At that occasion it adopted a Joint Declaration on relations between the EU and the Caucasus countries including Azerbaijan. The PCA covers cooperation in all non-military areas and its main elements are:

- < Elimination of trade quotas and provision of most favoured nation treatment
- < On investment: provision of MFN or national treatment to companies and freedom of capital movement
- < Protection of intellectual, industrial and commercial property rights
- < Yearly political dialogue at ministerial, parliamentary and/or senior official levels
- < The first Cooperation Council was held in Luxembourg on 12 October 1999 and the first Cooperation Committee was held on 27 March 2000. In total six Cooperation Councils have been held.
- < The latest bilateral meeting between the two sides was the EU Troika meeting with Azerbaijan, which took place on 13th December 2005 in Brussels.

In July 2003 the EU appointed a Special representative to the Southern Caucasus whose mandate is to (a) to assist the countries carry out political and economic reforms, notably in the fields of rule of law, democratisation, human rights, good governance, development and poverty reduction; (b) in accordance with existing mechanisms, to prevent conflicts in the region, to assist in the resolution of conflicts, and to prepare the return of peace, including through promoting the return of refugees and internally displaced persons (IDPs); (c) to engage constructively with key national actors neighbouring the region; (d) to encourage and to support further cooperation between States of the region, in particular between the States of the South Caucasus, including on economic, energy and transport issues; (e) to enhance EU effectiveness and visibility in the region.

Since its independence Azerbaijan has benefited a total of 399 Million of EC assistance, principally in the form of:

- < Humanitarian aid taking the form of feeding programmes, shelter for IDPs and refugees, medical programmes.
- < Food aid and budgetary food security assistance in the form of direct food aid and financial assistance to ensure food supplies

< Exceptional assistance for budgetary relief funding existing budget commitments to infrastructure investments that have close links to Tacis activities including energy projects, transport, nuclear safety and - Rehabilitation of territories damaged in the Nagorno-Karabakh conflict, including the rehabilitation of a railway line to Fizuli, electricity supplies, drinking water and irrigation and the reconstruction of schools.

The Tacis programmes since 1998 have concentrated on public sector reform and since 2002/3 put a stronger emphasis on poverty reduction following the adoption of a Poverty Reduction Strategy by Azerbaijan in late 2002. Below you find a table showing the main themes of the Tacis programmes for the period 1998-2006.

With the entry into force of the PCA and the improvement of the economic situation in the country the focus of EC assistance is shifting from humanitarian aid to rehabilitation, reconstruction and the promotion of trade and investment ties in between EC and Azerbaijan. EC assistance will also be used increasingly to reduce tensions resulting from the Nagorno-Karabakh conflict by supporting regional cooperation, post-conflict rehabilitation and by linking assistance levels to progress in conflict resolution.

EU feels strongly that the Minsk Group (OSCE) offers the best mechanism for the settlement of the Nagorno-Karabakh issue and fully support the efforts made by the Azeri Government and the Armenians to improve dialogue in recent months. Until progress is made over Nagorno-Karabakh regional stability will continue to be threatened and development stifled.

INOGATE (cross border energy initiative funded by Tacis) started the implementation of cross border small scale investment projects as a follow up to the Umbrella Agreement. Projects for the three Caucasus countries, such as improving cross border metering are included.

Future of EU-Azeri relations

The European Neighbourhood Policy marks a significant step forward in relations between the EU and Azerbaijan. Following a recommendation made by the Commission, the Council on 14 June 2004 decided to offer Georgia, Armenia and Azerbaijan to participate in the European Neighbourhood Policy. The Country report for Azerbaijan, assessing progress made by Azerbaijan with regard to political and economic reforms, was released on 2 March 2005. The European

Neighbourhood Policy builds on the existing Partnership and Co-operation Agreement but at the same time goes beyond it to offer the prospect of an increasingly close relationship with the EU, involving a significant degree of economic integration and a deepening of political cooperation. The ENP Action Plan for Azerbaijan which sets jointly defined key priorities in selected areas for the near future is in the process of being discussed, and the formal consultations on the Action Plan opened on 12th December 2005. The new assistance instrument ENPI (European Neighbourhood Partnership Instrument) will replace Tacis in 2007.

The continued development of the market economy is important and the creation of a business climate that is attractive to investment particularly from the EU is a key priority. In the wider social and political sphere, the strengthening of democracy and the respect for human rights remain of paramount importance.

General Data:

Official name: Azerbaijani Republic

Geography: area: 86.600 km²

Capital: Baku

Population: 8.3 million (2005 est.)

Ethnic groups: 90% Azeri, 3.2% Dagestani Peoples, 2.5% Russian, 2.3% Armenian

Religions: 93.4% Muslim, 2.3% Russian Orthodox, 2.3% Armenian Orthodox

Official Language: Azeri

Table 2
Political System

Constitution:	adopted 12 November 1995. Amended by referendum on 24th August 2002.
Legal system:	based on civil law system
Suffrage:	18 years of age; universal
Executive branch:	<p>chief of state: President İlham ALIYEV (since 31st October 2003)</p> <p>cabinet: Council of Ministers appointed by the president and confirmed by the National Assembly</p> <p>elections: president elected by simple majority vote to a five-year term; election last held 15 October 2003 (next to be held NA October 2008); prime minister and first deputy prime ministers appointed by the president and confirmed by the National Assembly</p> <p>election results: İlham ALIYEV elected president; percent of vote - İlham ALIYEV 76.8%, İsa GAMBAR 14%</p>
Legislative branch:	<p>unicameral National Assembly or Milli Mejlis (125 seats; members elected by first-past-the-post system to serve five-year terms)</p> <p>elections: last held 6th November 2005</p> <p>election results: Yeni Azerbaijan (New Azerbaijan) Party: 56, Popular Front: 1, Musavat: 5, Independent: 40, Ana Vata (Motherland): 2, Vətəndaş Hamraylıyı (Citizens' Solidarity): 2, Others: 9</p> <p>The main opposition parties are given in bold. The results in 10 of the 125 constituencies have been invalidated by the Central Election Commission. Reruns will take place on 13 May 2006.</p>
Judicial branch:	Supreme Court

Economy:

Currency: Azerbaijani Manat (AZM) [New Manat as from 1 January 2006]

Total GDP: \$8.5 billion (World Bank, 2004)

GDP per capita: \$ 950 (World Bank, 2004)

GDP real growth rate: 10.6% in 2002, 11,2% in 2003, 10.2% in 2004

Real per capita income : purchasing power parity - \$3,390 (2003 est.)

Inflation rate (consumer prices): 6.7% (World Bank, 2004)

For a fuller set of social and economic indicators, please consult the World Bank page for Azerbaijan (http://devdata.worldbank.org/AAG/aze_aag.pdf)

Table 3
TACIS-Priorities since 1998:

Tacis Priorities	1998/99	2000/01	2002/03	2004/06
Institutional, legal & administrative reform	PCA	PCA	PCA	PCA
Originally Infrastructure Networks	Ministry of Transport	Ministry of Transport		
	Ministry of Fuel and Energy	Ministry of Fuel and Energy	Ministry of Fuel and Energy	
		Pay policy reform		
		Cabinet of Ministers reform		
	Social targeting of assistance			Social targeting of assistance
				Border guards and anti people traffic
	Customs	Customs	Customs	Customs
	Statistics	Statistics	Statistics	Statistics
				Ministry of Ecology
				Institution Building partnership incl. Civil society
Private sector & assistance for economic development.	SME Development	SME Development	SME Development	SME Development
	Rural Credit	Rural Credit		
			Ministry of Tax	Ministry of Tax
		Securities market		
		International accounting standards		International accounting standards
				Vocational training strategy
		MTP Tempus	MTP Tempus	MTP Tempus
Tacis Total	16.0 m	14.0m	14.0m	30.0m

Table 4
EC-assistance to Azerbaijan (€ million):

	1992-1994	1995	1996	1997	1998	1999	2000	2001	2002-2003	2004-2006
Tacis National Allocations	20.50	6.00	8.00	8.00	8.00	8.00	7.00	7.00	14.00	30.00
Exceptional Assistance					10.00	10.00	10.00			0
ECHO	31.09			28.82	7.70	6.10	4.10	3.36	1.5	0
FEOGA		43.0	22.65							
Food security			15	16	14.0	12.0			20.0	(30.0)
Rehabilitation			3.0	4.0	4.5	3.2	3.674			
Exceptional Humanitarian Aid		8.0						1.5		
Total	59.59	77.82	56.35	34.1	40.6	38.06	22.17	7	34	30 + (30)

Total 1992-2006: Million 399.674

(429.694 m if potential Food Security Allocations are included (European Commission External Relations, October 27, 2008).

3. EU-Georgia Relations

General

Based on the Partnership and Cooperation Agreement (PCA) entered into force on 1 July 1999, the EU's cooperation objectives are to build a relationship with Georgia in which the respect of democratic principles, the rule of law and human rights, as well as the consolidation of a market economy are fostered and supported. The PCA provides for trade liberalisation and cooperation in a wide range of areas. Tacis is the main financial instrument supporting the implementation of the PCA and providing grant assistance for projects in priority areas that are defined on a biannual basis.

The EU has an interest in Georgia developing in the context of a politically stable and economically prosperous southern Caucasus. In this respect, the conflicts in Abkhazia and Tskhinvali region/South

Ossetia remain a major impediment to development in Georgia and contribute to regional instability. The EU supports the principle of Georgian territorial integrity. The decision by the Council of Ministers in 2001 with respect to conflict resolution in the southern Caucasus has intensified the EU's political commitment to the region in the following years. EU's involvement is yet limited to the South Ossetia conflict where the EU provides support to the Joint Control Mission but it stands ready to look for further ways in which it could contribute to conflict resolution, as well as post-conflict rehabilitation.

The appointment in July 2003 of a European Union Special Representative for the South Caucasus (the Finnish diplomat, Amb Heikki Talvitie) was a further step in the deepening of relations with Georgia and the other two countries of the region, Armenia and Azerbaijan. It is however Georgia's "Rose Revolution" in November 2003 which has opened up new perspectives for EU-Georgia relations. The EU has offered its political support to the new regime in Georgia through declarations and visits. President Prodi met interim President Nino Burjanadze in December 2003, HR Solana visited Georgia on 14-15 January 2004, Irish Foreign Minister, Brian Cowen, attended Saakashvili's inauguration on 25 January, and EU SR Talvitie has visited Georgia on numerous occasions often accompanied by high level Commission officials. He visited both Abkhazia and South-Ossetia and went to meet Ajara's leader, Aslan Abashidze, before as well as after the parliamentary election on 28th of March.

The Commission is preparing a recommendation on the relationship of the 3 South Caucasus countries with the European Neighbourhood Policy (ENP). The Council will discuss the issue in June 2004.

Besides, the Commission is co-chairing with the World Bank a Donors Conference for Georgia in Brussels on 16-17 June 2004.

Trade

Georgian trade with the EU is covered under Title III of the Partnership & Cooperation Agreement (PCA). Georgia benefits from the EU's General System of Preferences (GSP) and its economic status as Most Favoured Nation (MFN) put down in the PCA.

Nevertheless Trade between Georgia and the EU have yet remained at very low levels - in 2002 accounting for only 0.03% of the EU's external trade (with EU imports amounting to € 266 million and EU exports amounting to € 287 million). Conversely, trade with the EU amounted to about 26% of Georgia's imports and 43% of Georgia's exports. Georgia joined the WTO in 2000.

Assistance

The new Country Strategy Paper 2004-2006

In the light of the serious problems of governance in Georgia, highlighted in 2002 by kidnapping cases, the Commission decided to review the Country Strategy Paper (CSP) for Georgia, outside the regular cycle of CSP adaptations. A new CSP for Georgia was therefore prepared, together with a new Indicative Programme for 2004-2006. These were adopted by the Commission on 23 September 2003. The main lines of the CSP revision are that EU assistance should reach its objectives, including through:

- < significantly strengthening “conditionality” of assistance
- < more strongly focusing assistance on the most promising reform programmes

- < providing much stronger support to civil society

Thematic priorities for EU assistance 2004-2006 (all instruments):

- < Rule of law, good governance, human rights and democratic institutions

- < Fight against poverty

- < Conflict prevention, conflict settlement and post-conflict rehabilitation

The Commission has responded to the “Rose Revolution” by providing some immediate assistance and by examining how its instruments can best be mobilised in the new situation including the possible allocation of additional resources. In December 2003 the Commission decided to provide € 2 million from the Rapid Reaction Fund for support, via the UNDP, for the Presidential and Parliamentary elections (4 January and 28 March respectively) and to rapidly disburse € 5 million from Georgia's Food Security Programme as budgetary support during the winter months.

Georgia will also benefit from the continuing assistance provided under the Tacis Regional Cooperation Programme (Interstate programme).

Past assistance

Since 1992, the EU has supported Georgia through a range of instruments. The main instruments have been: ECHO humanitarian assistance: (92 million 1992-2002); Food Security Programme (59 million 1992-2002); Tacis National Programme (84 million 1992-

2002). Total EU assistance has amounted to 370m (not including Tacis Regional or member states' assistance).

Tacis Programme

The 2000-2001 Tacis National Action Programme (AP, total 15 million) concentrated on three priority areas, namely: (1) support for institutional, legal and administrative reforms; (2) support to the private sector development and assistance for economic development and (3) development of infrastructure networks.

In 2002-2003 Tacis, with an indicative budget of € 14 million, was focusing on support for institutional, legal and administrative reform, as well as on support in addressing the social consequences of transition. This included continued support to the approximation of legislation for the implementation of the PCA. Support in addressing the social consequences of transition was targeting the health sector, including investments to support the primary healthcare restructuring programme.

Georgia also participates in Tacis regional programmes like Traceca, Inogate and the Regional Environmental Centre for Southern Caucasus, based in Tbilisi.

Exceptional financial assistance

In July 1998, Georgia settled the remaining amount of its arrears towards the Community (€ 131 million). The country subsequently benefited from a new assistance package consisting of a loan of € 110 million and a total grant amount of € 65 million that was to be disbursed over the 1998-2004 period.

Food Security Programme (FSP)

Over the period 1996 to 1999 the FSP disbursed € 24 million to Georgia. Since 2000, the FSP has partially reoriented the support in favour of a complementary poverty alleviation component through the social safety net in the form of: (a) allocation of resources and further targeting of the family poverty benefit; (b) institutional care. € 13 million has been disbursed in the period 2002-2003.

Rehabilitation

EU assistance to Georgia under the rehabilitation programme concerned both the Tskhinvali region (South Ossetia, SO) and Abkhazia (Enguri hydropower plant and dam). In 1997, the EC proposed to grant 5 million for the rehabilitation of infrastructure in the post conflict area of SO, and in order to stimulate the peace-process between SO and Tbilisi. In 1999 the EC proposed a new grant of € 2.5 million, upon the approval and fulfilment of conditionalities. Given the dynamics created by its programme, the EC has provided financial assistance for and participated in the Joint Control Commission (JCC) on SO since April 2001. This quadripartite body (with Georgia, SO, North Ossetia, and Russia) is conducted with the OSCE.

Enguri. In 1997, the EC proposed to grant € 10 million for urgent repairs at the Enguri hydropower plant and dam (repair of generator Nr. 3 and provision of stop log at the dam), in two tranches of € 5 million and under its rehabilitation budget. This assistance was complementary to the rehabilitation program of Enguri financed from an EBRDR loan of some € 44.5 million.

Humanitarian Assistance (ECHO)

ECHO has been present in the NIS region since the early 1990s, in accordance with its core mandate (humanitarian assistance in response to natural or man-made disasters). From 1993 to 1999, ECHO's operational funding in the southern Caucasus has been considerable, with € 64.255 million of humanitarian aid going to Armenia, € 83.34 million to Georgia and 82.96 million to Azerbaijan.

ECHO's withdrawal from post-emergency programmes in southern Caucasus started in 1996 and was completed in 2000 with a last allocation of € 3.855 million for the three countries. In 2000, 2001 and ECHO provided a total € 2.35 million as a contribution to alleviating the consequences of the drought in Georgia.

Support to the Georgian Border Guards

Through a Joint Action in the framework of Common Foreign and Security Policy, the EU provided equipment worth € 1.045 million to the Georgian Border Guards (GBG) in 2000 and 2001, aimed at protecting the unarmed OSCE monitors at the border between

Georgia and the Chechen Republic of the Russian Federation.
European Initiative for Democracy and Human Rights (EIDHR)

With an allocation of € 1.9 million Georgia was a focus country for the EIDHR in 2002.

Table 5

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total M €
Humanitarian Aid: ECHO		11.78	17.81	27.45	10.20	5.80	6.41	6.93	2.62	1.05	2.00	2.20	94.25
FEOGA				41.0	21.55								62.55
Exceptional Humanitarian Aid		6.0											6.0
Aid against effects of Russian Crisis								4.0					4.0
Food Security Programme					18.25	16.0		12.0		13.00*			59.25
TACIS National Allocations	9.0	4.0	4.0	6.0	8.0	8.0	8.0	8.0	11.0	4.0	14.0**		84.0
Rehabilitation in Conflict Zones						3.50	6.50	7.50		10.0			27.5
Exceptional financial assistance (disbursed)							10.0	9.0		6.0			25.0
CFSP									1.09	0.25	0.1	0.16	1.60
EIDHR										0.23	2.5	2.82	5.55
RRM												2.00	2.00
Total M €	9.00	21.78	21.81	74.45	58.00	33.30	30.91	47.43	14.71	34.53	16.1	7.18	369.43

* Disbursed

** Allocation for 2002-2003

4. Basic Data

Independence: 9 April 1991 (from Soviet Union)

Constitution: adopted 17 October 1995 (amended on 4 February 2004)

Legal System: based on civil law system

Suffrage: 18 years of age: universal

Executive Branch: President Mikheil Saakashvili (elected as president on 4 January, inaugurated on 25 January 2004) The president is elected for a five-year-term and is both the chief of state and head of government; Prime Minister: Zurab Zhvania; Cabinet: Cabinet of Ministers

Legislative Branch: unicameral Supreme Council (235 seats, members are elected by popular vote to serve four-year-terms); Speaker of Parliament: Nino Burjanadze; last elections held on 28 March 2004

Government type: republic

Capital: T'bilisi

Population: 4,934,413 (July 2003 est.)

Population growth rate: -0.52% (2003 est.)

Birth rate: 11.79 births/1,000 population (2003 est.)

Death rate: 14.71 deaths/1,000 population (2003 est.)

Life expectancy at birth: total population: 64.76 years male: 61.33 years, female: 68.36 years (2003 est.)

Net migration rate: -2.3 migrant(s)/1,000 population (2003 est.)

Ethnic groups: Georgian 70.1%, Armenian 8.1%, Russian 6.3%, Azeri 5.7%, Ossetian 3%, Abkhaz 1.8%, other 5%

Religions: Georgian Orthodox 65%, Muslim 11%, Russian Orthodox 10%, Armenian Apostolic 8%, unknown 6%

Languages: Georgian 71% (official), Russian 9%, Armenian 7%, Azeri 6%, other 7%: Note: Abkhaz is the official language in Abkhazia

GDP - purchasing power parity : \$16.05 billion (2002 est.)

GDP - real growth rate: 5.4% (2002 est.)

GDP - per capita: purchasing power parity - \$3,200 (2001 est.)

Population below poverty line: 54% (2001 est.) (European Commission External Relations, October 27, 2008).

Conclusion

According to Borut Grgic, Director, Institute for Strategic Studies, Ljubljana Some South Caucasian countries, such as Azerbaijan are rich in oil and gas, while others, Georgia and Armenia can serve as effective transit routes for Russian and Central Asian energy to the EU, namely, gas. With the increased energy consumption and dependence on imports, the EU could engage the countries of the South Caucasus to import the CIS energy. The South Caucasus also provides access to Central Asia, which is important to the EU in order to push reforms and check the influence from neighboring Russia, China and Iran (and possibly India) on the region.

EU's relationship with the South Caucasus has been weak due to two reasons. First, the EU's internal crisis over the constitution and lack of leadership are impacting its longer-term vision over the South Caucasus. This situation sets back the relations with Armenia, Azerbaijan and Georgia and gives an upper hand to Russian influence. Second, because the bureaucracy in Brussels drives the EU's relationship with the South Caucasus, it is quite insensitive to the day-to-day problems of the region. Therefore, certain venues of reforms and bilateral relations are not pursued, while Russia is able to take advantage of the situation and fill the vacuum. For example, Russia is more actively getting involved in the resolution of the Nagorno-Karabakh problem since the EU is staying out of it. Because of this complexity, the EU's influence on the region is weakening.

There are plenty of champions within the EU making the South Caucasus a priority but no significant progress is visible because of lingering bureaucratic stagnation. Without changing its political stance to the South Caucasus, the EU would not be able to maximize its influence on the region and will miss its opportunity to other regional players. EU needs to provide more political commitment to the region, which means stop treating it as a Brussels issue and start thinking of the future accession plans of Armenia, Georgia and Azerbaijan. EU should also provide more commitment to reforms. These actions will be timely when the EU is increasingly dependent on energy imports and is seeing the rising powers of other Eurasian players that may increase their leverage both on the South Caucasus and Central Asia.

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THE GEORGIA FORECAST™ and Three Imperatives for Economic Growth

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Abstract

Research reveals three imperatives for the growth of national economies: education, health, and technology. Growth requires a well educated population to do the nation's work. Workers must be in good health in order to be productive. But even well educated and healthy workers need technology in order to leverage their efforts. While these three imperatives are common conditions for growth, rational government policies are required for these factors to function. A new set of forecasting models, THE GEORGIA FORECAST™, indicate that near- and long-term prospects for Georgia's growth are bright. These prospective outcomes may be enhanced by rational, economically efficient and equitable adjustments in policy.

ეკონომიკური ზრდის 3 იმპერატივი

ედუარდ რაუპი
საქართველოს უნივერსიტეტი

ნაშრომი წარმოადგენს ეროვნული ეკონომიკის განვითარებისა და ზრდის განმაპირობებელ 3 ფაქტორს: განათლება, ჯანმრთელობა, ტექნოლოგია. განათლებული საზოგადოება ეროვნული საქმის სამსახურში წარმატებული ეკონომიკური ზრდის განმსაზღვრელია, მოქალაქეების ჯანმრთელობის ხარისხი კი პროდუქტიულობისა და სამუშაოს ეფექტურად შესრულების პირდაპირპროპორციული. თუმცა დღეს, მხოლოდ ადამიანური რესურსი და ჯანმრთელობა არ არის საკმარისი დასახული მიზნის მისაღწევად. განათლება და ჯანმრთელობა უნდა გამყარდეს ტექნოლოგიური უზრუნველყოფით. ხელისუფლებამ მიზნად უნდა დაისახოს ზემოხსენებული სამი მიმართულების განვითარება. პროგნოზირების ახალი მოდელები, THE GEORGIA FORECAST™, მიანიშნებენ, რომ საქართველოს ახლო და გრძელვადიან გეგმებს ნათელი მომავალი აქვს. სასურველი შედეგი მიიღწევა პოლიტიკაში ეროვნული, ეკონომიკურად სწორი და რაციონალური ცვლილებების შეტანით.

A substantial body of research suggests that there are three imperatives for the growth of any economy. These are Education, Health, and Technology. This paper will suggest a fourth imperative, and the reader may consider others, as well. But these are the three that seem to be common across nations and across time.

Fifty years of research in Development Economics reveals to me the following 3 realities:

First, the growth of any economy depends on a well educated population (Barro & Lee, 2000; Becker, 1993; Beherman, 1987; Krueger & Lindahl, 2001; Psacharopoulos, 1994). This means universal primary and secondary education and tertiary education that prepares people for leadership and the professions.

The great teacher and statesman, Julius Nyerere, Founder and First President of Tanzania, said that education should be universal, high quality, relevant, and socially responsible (Nyerere, 1999). This is the obligation of all of us who are involved in education at all levels.

Second, even a well educated population must be in good health if they are to be productive (Alleyne, 2001; López-Casasnovas, Rivera, & Currais, 2005).

In terms of economic growth, we may use measures such as life expectancy, quality of life, and public health statistics.

Third, even a well educated and healthy population needs technology to leverage their efforts (Marshall, 1890/1920; Mokyr, 1990, 2005).

Technology starts with ideas. One of the most recent schools of thought in the area of development economics is called “Idea-Based Growth Theory” (Jones, 2004).

Ideas must be nurtured in an economy with a strong research program.

And research leads to the kinds of infrastructure that a society needs in order to improve the wellbeing of its people.

Every first-year student of economics understands that economies grow by using natural, human, and capital

resources. These are commonly the bases on which development economists build their models and do their analyses.

Georgia enjoys an abundance of two of these resources, and the third is on a steep growth curve. Georgia is in the temperate zone, situated in the strategically important Silk Road Corridor, with 310 km of coastline, most of which is fit for warm water ports. The CIA Factbook (2007) lists among Georgia's key natural resources its forests, hydropower, manganese deposits, iron ore, copper, and minor coal and oil deposits. A coastal climate and fertile soils allow for important tea and citrus growth, as well as many kinds of fruits, nuts, and vegetables.

Georgia also has an abundance of well educated human resources, with an adult literacy rate approaching 100 percent. The rate looks the same for males and females. This comes as no great surprise, but it is commendable and certainly different from many nations around the world, where females are systematically excluded from schools.

Primary and secondary education is mandatory in Georgia, and tertiary education in Georgia is undergoing what might be termed "robust reform." To a significant degree, it does appear that the reforms reflect a concern for the kind of clean governance that is essential for economic growth and a well functioning democracy.

Moving from the First Imperative, Education, to the Second, Health, we can look at Life Expectancy, Quality of Life, and Public Health as measures of health and wellness. The reader may want to suggest other measures, and one would not object.

The idea here is to find those factors that can tell us whether the population in general, and the labor force in particular, are healthy enough to do the nation's work. The measures we will use here are Life Expectancy, Quality of Life, and general Public Health.

Looking first at life expectancy, Georgians have a fairly high average of life expectancy: 76 years. Men can be expected, on average to live 73 years. Women outlive men on average by 7 years.

The King of Bhutan measures quality of life using a statistic called “Gross National Happiness” (Kinga, Galay, Raptan, & Pain, 1999), but most economists prefer Gross Domestic Product per capita.

There is a strong positive correlation between the two. The data show that people in low-income nations may be happy or unhappy, but overwhelmingly there are few rich nations with a low level of happiness (World Values Survey, 2007).

Georgia’s GDP is about \$18 billion , and GDP per capita is around \$4,000. Real GDP growth (that is growth with inflation taken out) is between 12 and 13 percent, one of the highest in the world (CIA, 2007).

The high growth rate may be misleading, as more than half of Georgians live below the poverty line. And the growth is mainly concentrated in Tbilisi, with the regions largely languishing in a no-growth state.

In the area of public health, the HIV/AIDS rate in Georgia is less than 1/10 of 1%. That’s the good news. The bad news is that many people suffer from the effects of smoking, alcohol, and reckless driving.

Smoking is Georgia’s Public Health Enemy Number One. The World Health Organization estimates that fully 60% of adult Georgian males smoke.

Although the female smoking rate is one-quarter of this figure, the bad news is that 30 percent of young boys smoke. It’s likely that these boys, and many of their non-smoking friends, will become adult users.

We don’t need to dwell on the harmful effects of smoking, and Georgians know them, everything from digestive and neural disorders to complications of pregnancies and neo-natal problems to early death.

And, despite the claims of the cigarette companies, “TOBACCO SMOKING CAUSES CANCER.” There is no longer the slightest doubt. Cigarettes and other forms of tobacco use cause 30% of all cancers and 90% of lung cancers.

The point is this: Nations need healthy people to grow healthy economies.

Now about alcohol. Here's a surprise: The UN's Food and Agriculture Organization reports significant declines in adult per capita consumption of alcohol in Georgia.

There have been declines in the total amount of alcohol consumed during the period 1990 to 2001. Beer consumption is up very slightly, but hard liquor is down, and total alcohol consumed in the form of wine is down sharply over the past 10 years. Alcohol is still a problem, however, especially when it's combined with driving. All young drivers are at higher risk than adults for fatal crashes, but the odds are even greater for drinkers.

Again, I make the point that if our young people are dying in car crashes, it has a negative effect on the economy as well as a devastating effect on families.

What can we do? To start: "BUCKLE UP!"

Now let's move to the Third Imperative, Technology.

Georgia's capacity to generate ideas and conduct research in the modern era has yet to be tested. One area in which Georgia does have a proven record of world class ideas and research is the Eliava Institute of Bacteriophage, Microbiology, and Virology in Tbilisi (Georgian Academy of Science, 2007). Throughout the world, the subject of drug-resistant bacteria – or "superbugs" – is rising to a crisis concern. Eliava Institute's technologies are truly world class and have great potential for expansion to Europe, North America, Asia, and other locations.

Georgia's infrastructure has been in decay for more than a decade. It will take many more years and billions of dollars in civil engineering projects to restore the nation's infrastructure, but here, too, there are signs of progress. Especially noteworthy are the new 4-lane highway to the west, a new airport in Tbilisi, and improvements in Batumi and Borjomi.

Georgians are leapfrogging technology in communications by using mobile phones and the Internet. At last count,

there were more than 1½ million mobile phones, over 11,000 Internet hosts, and more than 175,000 Internet users (CIA Factbook, 2007).

Now let's do a little forecasting.

A number of very large forecasting organizations are at work around the world. US-based Global Insight, UK-based Consensus Economics, and others tend to focus on the really big economies: the United States, Japan, China, and European Union, for example. But they don't pay much attention to the Georgian economy. As late as the fall of 2007, Global Insight was forecasting a real GDP growth rate for Georgia of 8.9 percent for the full year of 2007, this despite an actual rate of 12.5 Percent in the first six months. Consensus Economics was even more pessimistic, forecasting a growth rate of just 7.2 percent for the entire year. (N.B. Global Insight adjusted their forecast upward to 11.2 percent in November.) The difference between 7.2 percent and 12.5 percent is a whopping 74 percentage points. No organization in Georgia would be able to rely on forecasts with such a variance; in short, such forecasts are simply useless.

This demonstrates that there is a clear need for a Georgia-based econometric forecasting capability. Such a capability is under development at The University of Georgia, *Sakartvelos Universiteti*, in the form of THE GEORGIA FORECAST™ (TGF). This is a group of over 120 students and professors with the mission of conducting and publishing research that will assist decision makers in the economic development of Georgia. TGF is an Ltd. associated with the Advanced Research Center of The University of Georgia and is governed by its own Board.

The model starts with an extensive scan of the local, national, regional, and global environment. More than 60 students are Liaison Officers to foreign embassies, Georgian Parliament, ministries of the Georgian government, the National Bank of Georgia, government and non-government organizations, and commercial organizations. Liaison officers stay in touch with their counterparts and act as two-way communications media.

Added to the scan is a person-to-person monthly survey of consumers and producers in Tbilisi and Gori. As funds become available, the surveys will be extended to other regions. Respondents are queried as to their expectations.

Primary and secondary data are used by the model to forecast variables of interest, most notably, real GDP growth rate, employment, and inflation. Although the organization is currently focused on the Georgian macroeconomic situation, specific sectors are also in the queue for analysis, with sector specialists watching agribusiness, construction, energy, financial services, health systems, insurance, manufacturing, real estate, and tourism.

The model itself, while still under construction, is a modified dynamic, stochastic, general equilibrium model (DSGE). The modification comes from the fact that human intervention is applied, both to add the dimension of judgmental forecasting and to select from among different iterations in order to use that version that yields the smallest forecast error.

In its first published news release TGF, projected a real GDP growth rate of 13 percent for the full year 2007. In a few weeks' time we will measure our forecast error, but we believe we are fairly close to the mark with this forecast.

In addition to its scanners and surveyors, TGF has a staff of administrative, marketing, and technical resources consisting of over 50 students and professors.

There are reasons to be hopeful about the Georgian economy in the near-term and in the mid-term future. First of these is the solid growth of the economy, fueled by robust financial services and construction sectors. In the mid- to long-term, we have reason to be hopeful that the tourism and hospitality sector will add a third engine to the healthy, sustainable growth of the Georgian economy. Another reason to be hopeful is the growing interest by foreign investors, especially in the form of foreign direct investment. One cannot miss the signals being sent by Holiday Inn (192 rooms in 2008), Hyatt (183 in 2009), InterContinental (170 in 2010), Kempinski (250 in 2010), and Radisson (170 in

2009), to say nothing of Sheraton and Marriott, already in the upscale hotel market.

There is, however, as mentioned at the start of this paper, a Fourth Imperative, and that is *Rational Government Policies*. The Georgian government, since early in 2004, appears to have been following such policies. At least one piece of evidence is that the World Bank now considers Georgia to be one of the top 20 nations in the world to do business. A World Bank report states, “Georgia’s future is bright, and its high economic growth rate backed by political reform will continue to attract foreign investors in increasing numbers.”

There are a number of reasons to be hopeful about the prospects for growth of the Georgian economy.

First is what one might call the Law of Capital Flow: In short, capital loves low labor rates, and labor rates are low in Georgia. This will serve to attract capital in the near term.

Second is the Rule of 70: Divide 70 by a growth rate and you get the number of years it takes to double the underlying variable. Georgia’s economy is growing by at least 10% per year. Divide 70 by 10 and you get 7. In other words, the economy will double in 7 years. And this growth rate has been going on for several years and will likely continue at or about this level for at least a few more years.

Since the population is not growing, GDP per capita in another 3-4 years will be twice what it was a few years ago. The average Georgian will be more than twice as well off as he or she was at the start of this decade.

The third reason to be hopeful about the Georgian economy is what one might call the Crane Index. Put simply, one counts the number of building cranes in a capital city and finds the correlation between that number and the nation’s growth rate.

Some four years ago, a count showed about a dozen cranes in Tbilisi. Today, you can count more than that number in the Saburtalo area of Tbilisi alone, and there are similar numbers in Vake and other areas.

The fourth reason is the reforms that the Georgian Parliament has enacted over the past 3 years and that the government has pursued in that time. These reforms have had a dramatic impact on the kind of corruption that impairs economic efficiency.

Even with these four reasons to be hopeful, there are reasons to be cautious about the Georgian economy, as well.

First: While capital loves low labor rates, it flees instability. The worst possible thing that could happen to the Georgian economy – and to the people of Georgia – would be a civil war. The demonstrations of November 7, 2007, were not helpful in this regard.

The second reason to be cautious is that Georgia's low birth rates mean there will not be enough workers to take the jobs that will be created over the coming years. Unemployment will drop, but the economic growth rate will slow down unless there is a planned program of guest workers from other countries or return of Georgians from abroad.

The third reason to be cautious about the Georgian economy is that low levels of capital will result in declining growth rates, as the supply of loanable funds is exhausted.

Fourth: War would be catastrophic, but the situation with Abkhazia and South Ossetia today also causes investors to be nervous about making investments in Georgia.

Fifth: The high real growth is almost entirely in the capital city, with little growth in the regions.

Finally: The high rate of growth in Georgia is being largely fueled by two sectors: construction and financial services. Vano Chumburidze believes the construction boom will slow down in the near future. Let me quote him:

“Currently, the building sector is growing based on loans. When the banks ask their clients to pay back the loans and they are not able to give the money back, they will acknowledge that they cannot meet the increasing demands. As for flats, the banks will take them instead of

the money. Finally the construction sector will come under commercial banks' control."

He goes on to say, "When the population realizes what's going on and the banks start taking their flats as a guarantee, the price of property will go down."

I'd like to add that idle capacity in Kutaisi, Gori, Telavi, and other cities, as well as the villages, is both inefficient and inequitable.

One might like to see at least some of the building activity move to the regions to take advantage of the available resources and plan for a "soft landing" in Tbilisi as the building boom slows down.

Returning to the financial services sector, one would hope that the Parliament would give serious consideration to a national deposit insurance plan, with premiums paid by commercial banks based on their levels of deposits. Such a plan would likely attract a huge amount of portfolio investment from both Georgians and foreigners alike. An extensive network of bank examiners, working within carefully designed system of regulations could help to guard against the moral hazard problem of banks making risky loans.

There is ample reason to predict a bright future for the Georgian economy. The education reforms, hospital restructuring, and progressive government are just a few of the signs.

Still, one is hopeful that some attention will be paid to the regions, and that there will be greater diversification in the economy.

Our conclusions for the Georgian economy, albeit preliminary at this stage, are these:

- Continued robust growth over the next few years, provided there is no open conflict, progress is made in thawing the frozen conflicts, and a more diversified industrial and commercial structure is developed.

- Then the growth rate will slow down, maybe to the range of 5-7 percent.

- In the short run, as well as for the long-term wellbeing of the Georgian society, leaders must find ways to support an

economy based on peace, fairness, justice, and prosperity, not just for the few, but for all people throughout the nation.

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Priorities of Small Business Management

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Abstract

The economic stabilization of a country in a market economy transition period significantly depends on the society's stability. Small businesses are the basis of today's Georgian economics, but because of unsuitable management, advantages of this form of business organization are not completely realized. Mostly small entrepreneur structures are handled by their owners, but it is not always advisable. Mainly nonhierarchical small business management structures do not give rise to formal relations, what not existence of suitable managing style stipulates inadequate organization behavior, but unorganized management becomes primitive. It is often the reason small business entrepreneurs fail. So, suitable management for small business is as necessary as initial capital, tangible assets and other factors of development. Because of small business managements, un-development increased following negative events: diversification policy directing becomes harder because of little opportunities to overcome the difficulties of entering and leaving from one sector to another, effective inventions attraction opportunities are reduced while groundless business-strategy conditions; bankrupt risk is large because of uncompetitive managerial decisions; the quality of using business consulting is low and it is often used not to make optimal decisions but to documenting already made decisions; business educations system in Georgia can't satisfy the requirements of small business, because neither entrepreneurs have exact formulated demand on managerial education, nor is the active staffers re-training system market adequate. It's clear that solving the aforesaid problems is impossible without concerning consensus achievement of stakeholders and strong will. Most managers and entrepreneurs pay less attention to strategic approaches while managing small business structures.

Managers of small structures are required to be flexible thinkers and dynamic actors in the marketplace, while estimating strategic alternatives for elaborating the most preferable strategy by observation of the environment without complex research. They provide SWOT analyze, estimate competitiveness, foresee opportunities of outsourcing, analyze value chains, plan business operations and project organization process and etc. All of this requires a special style of management, one which must provide small business advantages such as: high maneuvering, flexibility, effective informational-communicative connection, entrepreneur - innovative potential and other. Time budgeting by a manager must include equal expenses for work planning-organizing and control, also motivation and support for employees.

მცირე ბიზნესის მენეჯმენტის პრიორიტეტები

თემურ ხომერიკი
საქართველოს უნივერსიტეტი

საბაზრო ეკონომიკაზე გარდამავალ პერიოდში მცირე ბიზნესის განვითარება ქვეყნის მდგრადი ეკონომიკური განვითარებისა და სოციალური სტაბილურობის უმთავრესი საყრდენია. მიკრომეწარმეობა ხასიათდება რიგი დადებითი თვისებებით, თუმცა არასათანადო მენეჯმენტის გამო, სრულად ვერ რეალიზდება ბიზნესის ორგანიზაციის ამ ფორმის უპირატესობები. მცირე სამეწარმეო სტრუქტურებს უპირატესად მათი მეპატრონეები მართავენ, რაც ყოველთვის გამართლებული არაა. მცირე ბიზნესის მართვის უპირატესად არაიერარქიული სტრუქტურა იწვევს არაფორმალური ურთიერთობების პრიმატს, რაც შესაბამისი ხელმძღვანელობის სტილის არარსებობისას განაპირობებს არაადექვატურ ორგანიზაციულ ქცევას, ხოლო მენეჯმენტი წარმოებს პრიმიტიული ფორმით. დაუსაბუთებელი ბიზნეს-სტრატეგიების პირობებში შემცირებულია ეფექტიანი ინვესტიციების მოზიდვის შესაძლებლობები. მმართველობითი გადაწყვეტილებე-

ბის არაკომპეტენტურობის გამო დიდია გაკოტრების რისკი. ჯერ კიდევ დაბალია ბიზნეს-კონსალტინგის გამოყენების ხარისხი, ხოლო საქართველოში არსებული ბიზნეს-განათლების სისტემა ვერ აკმაყოფილებს მცირე ბიზნესის მოთხოვნებს. მენეჯერებისა და მეწარმეების უმეტესობა მცირე ბიზნეს-სტრუქტურების მართვისას ნაკლებ ყურადღებას უთმობენ სტრატეგიულ მიდგომებს. მცირე სტრუქტურების მენეჯერებს სტრატეგიული ალტერნატივების შეფასებისას მოეთხოვებათ მოქნილი აზროვნება და ბაზარზე დინამიკური ქმედება, რათა კომპლექსური გამოკვლევების გარეშე გარემოზე დაკვირვებით შეიმუშაონ ყველაზე მისაღები სტრატეგია. ისინი უნდა ატარებდნენ SWOT ანალიზს, კონკურენტუნარიანობის შეფასებას, აუტსორსინგის შესაძლებლობების დაზვერვას, ღირებულებათა ჯაჭვის ანალიზს, ბიზნეს-ოპერაციების დაგეგმვას, ორგანიზაციული პროცესების დაპროექტებას და ა.შ. აღნიშნულის განხორციელებისთვის აუცილებელია ხელმძღვანელობის განსაკუთრებული სტილის გამომუშავება, რომელმაც უნდა უზრუნველყოს მცირე ბიზნესის ისეთი უპირატესობების რეალიზაცია, როგორცაა: მაღალი მანევრულობა, მოქნილობა, ეფექტური ინფორმაციულ-კომუნიკაციური კავშირები, მეწარმულ-ინოვაციური პოტენციალი და სხვ. ხელმძღვანელის დროის ბიუჯეტი კი თანაბრად უნდა ეთმობოდეს როგორც საქმიანობის დაგეგმვა-ორგანიზაციასა და კონტროლს, ასევე თანამშრომლებისადმი დახმარებას და მათ მოტივაციას.

Our society could neither exist as we know it today nor improve, without a steady stream of managers to guide organizations. Peter Drucker emphasized this point when he stated that effective management is probably the main resource for developed countries and the most needed resource for developing ones (Samuel C., & Certo.Trevis , 2006). Experts estimate that small businesses are the main basis for today's Georgian economy, but because of unsuitable management, advantages of this form of business organization

are not completely realized. Mostly, small entrepreneur structures are handled by their owners, but it is not always advisable. Mainly non-hierarchically structured small business management leads to non-formal relations, which by itself, stipulates inadequate organization behavior, as a suitable managing style does not exist, and unorganized management is realized by primitive form. It is often the reason small business entrepreneurs fail. Therefore, suitable management for small business is as necessary as initial capital, tangible assets and other factors of development.

Economical stabilization of the country in a transitional period of market economy significantly depends on the stability of the society. The truth is that in independent Georgia with the help of international organizations, the executive bureaucratic-intellectual elite de jure, established market mechanisms before foundation of private property, but the process of forming the middle stratum of society was very extended and property polarization is more and more noticeable. In spite of small commodities producing expansion, the development of real owners' middle stratum is greatly behind current market reforms' scales. As a result, transformational processes were realized appropriation of economic treasure (wealth) by state bureaucracy, as well political and technocratic-managerial elite using authority, and this assisted Quasi-owners level forming. Their rights to ownership are diffused and periodically, cause a struggle for property redistribution with intensive participation of new political-crates and active managers. Considering these conditions, the creation of a liberal business environment and development of small entrepreneurship is very important for the economically active population in the country.

According to officially declared data, the total circulation of small enterprises composes 7.4 percent of the business-sector's entire circulation, and total output - 6.9 percent of the business-sector total output. Total employment in small enterprises makes up 19.5 percent of total employment

in the business sector, in which 43.3 percent are women, and 56.7 percent are men.

Different sectors, according to the variety of activities in small enterprises, circulation has the following shares: trade; vehicle maintenance, and repair of personal items - 54.3 percent, processing industry - 14.1 percent, operations by real estate, lease and consumer service - 9.2 percent, hotels and restaurants - 6.4 percent, transport and communication - 5.9 percent and others.

According to the variety of activities in small enterprises the outputs prevailed in the following sequence: processing industry - 26.0 percent, trade; car maintenance and repair of personal items - 18.4 percent, operations by real estate, lease and consumer service - 16.9 percent, hotels and restaurants - 6.4 percent, construction - 8.8 percent.

According to the variety of activities in small enterprise the population is occupied with the following order: Trade, vehicle maintenance and repair of personal items - 30.7 percent, processing industry - 18.0 percent, operations by real estate, lease and consumer service - 13.8 percent, hotels and restaurants - 9.2 percent, transport and communication - 6.6 percent.

Total employment distribution in small enterprise by regions is characterized by following structure: Tbilisi - 42.2; Imereti - 14.4; Kvemo Kartli - 9.0; Adjara - 8.1; Samegrelo - Zemo Svaneti - 8.1; Guria - 1.9 and etc.

At present, small and medium enterprise support systems are not formally functioning and government based influence is insignificant for this type of business activity. According to Georgian law, "Support of small and medium enterprises," after changes and additions were made in the law on "National Agency of Georgia" it was determined that: According to Georgian law on "entrepreneurs," small and medium enterprises located in Georgian territory include all organizational/legal forms of enterprises in which the annual average number of employees is not more than 20 and annu-

al circulation is not more than 500,000 GEL; enterprises won't be considered small or medium if more than 25 percent of its equity fund is owned by individual/individuals who do not meet the requirements of the law about small and medium enterprises; it's main activity is banking, insurance and other types of financial services.

In the conditions of growing unemployment (employees released from the state agencies, also people were rified because of the restructure and reorganization of different organizations and enterprises, restriction of self-employed poor stratum's business activity because of crisis - ridden appearances) and poverty, it is important to support small enterprises formation and their business activity. Positive influence of possible changes (establish accelerated amortization regime, make small landowners' free from taxes, release from taxes those entrepreneurs who do not use hired workers, provide tax amnesty, liberalize registration of enterprise units and taxation regime and etc.) in Georgian tax code at posterior legalization and growth of small entrepreneur income is important. Though privileges implemented until today were about micro enterprises and at present they are canceled. In action is only Privilege determined by tax code at same types of entrepreneur who do not use hired labor and the industrial space used by them doesn't exceed determined small utmost index.

In economic practice, micro enterprises include: enterprises formed by legal individual also individuals by themselves (individual entrepreneurs, self-employees, domestic workers and etc.), family enterprises and farming, where number of employees are not more than 10 people, and necessary capital investment is - US\$ 25000. Parameters of micro enterprises need further definition on legislative level, as 80 percent of the population are employed or self-employed in these enterprises, and in the case of establishing privileges for them without suitable criteria, identification would become difficult. In spite of this, micro enterprises use

low-productivity technologies and prefer extensive methods of production development. Micro entrepreneurship is characterized with some positive features: existence opportunities in conditions of minimum resources and organizational expenses; using family members and relatives as labor, which makes easier to organize work and provide backgrounds for success; close connections with consumers and orientation to satisfy narrow circle requirement of concrete consumer, narrow specialization of production and services, ability for self-education and self-management. For micro enterprises, mobility is typical; their social significance is important for the process of creating new work places and using existing potential effectively. Often, men create micro enterprises not only for economic purpose but for moral principles. Herewith small entrepreneurship means incomplete workday employment and self - employment to provide additional income for domestic economy.

According to international statistics, annually the number of officially registered micro enterprises is more than 500 million. Millions of micro enterprises are closed or transformed into medium business category after expansion even more micro enterprises start functioning. People employed in micro enterprises provide income for the family (micro entrepreneurs' additional source of income is also social aids, incomes from personal plots, assistance given by relatives, salaries and money transfers received from other activities).

According to research by USAID, there are about 210 thousand micro enterprises in Georgia and only half of them are officially registered. Many micro enterprises are gathered in Tbilisi. A small number of them are registered in Mtskheta - Mtianeti and Samtskhe - Javakheti regions. Between other regions, the most micro enterprises operate in Adjara, Samegrelo and Imereti. The most registered micro enterprises operate in trade sector and nearly one-third - rural economy, in service and production more than 10 percent. In the industrial sector furniture workshop, carpenters workshops,

mills, productions of food products, bakeries, and bread baking enterprises dominate. Agricultural enterprises operate most often seasonally. Most rural economy enterprises include: farming, fruit production, also objects of their activity is beekeeping, wine making and crop cultivation. As for the service sector the most developed ones are food providing places like restaurants, cafes and etc.; also beauty saloons, domestic service (shoes repair, vehicle repair and etc.), communication service share also is very important.

Georgian markets assimilated by small enterprises are characterized by high competitiveness, which demands available information about market conjuncture and effectiveness of self management. As a rule, value of their initial capital is small, so it is very important to use loans and credits to satisfy financial requirements. For development in this sector, technical aid is as important as financial (consulting, trainings for improving professional skills and etc.). Current infrastructure cannot provide effective support to small businesses that makes it even more difficult for small enterprises to find their own shelter. Consequently every small business-structure has to go through one and the same difficulties:

◀ Imperfection in estimation of markets because of limited information. Small entrepreneurs have difficulties in finding their places in the market because they do not have suitable information, unforeseen loses are frequent and casual factor effect is high. It is necessary to utilize special programs designed by the state and foreign donor countries in order to provide access to contemporary information technologies for this layer of entrepreneurs.

◀ Lack of motivation during the transition from shadow economy into official sector. In order to increase interest of micro enterprises to be officially registered, it is necessary to establish tax privileges and restore confidence towards government, as state programs are usually of declarative character.

◀ Employees in small enterprises often lack skills such as calculation, accountability, elementary basis of marketing, and management. Not having this type of experience, small and medium businesses are hindered and decisions that are made by them are characterized with incompetence which often leads to the dissatisfaction of the clients.

◀ For most micro enterprises, profitable loans and credits are basically inaccessible. Many micro enterprises are compelled not to care about saving but to spend their money economically for family needs because of their small income (by estimation of experts their average annual incomes isn't more than US\$ 5000). In this stratum there is noticeable surplus of fear or risk and non confidence towards financiers, also many of them don't believe that they would be able to cover the credit timely and would lose because of inflation.

Internal reserves still remain main resource for development of micro enterprises but they are not able to replace the role of loans and credits in filling circulating assets. For today the fixed demand of small loans for enterprises is US\$ 200 million more than its supply in Georgia. Georgian, non-banking, micro finance organizations and commercial banks covered only one-third of potential clients, other micro enterprise structures satisfy their demands for financial resources by cash calculation from different sources. Investment activities of small enterprises need encouragement afterwards, including accessibility of micro finances and microfinance organizations. In this case, the role of the non-banking sector and microfinance organizations' is very important, as micro financing gives entrepreneurs the possibility to receive necessary sources via simply documentation and procedure, besides, all of this needs time and is realized by an available regime; it doesn't require expensive methods of guarantees and hard conditions of bailing (insurance uses group guarantees, different forms of warranty, etc.). The creation of credit unions also needs support, as it is mutual aid for juridical and physical persons, regardless of its other positive sides.

Fundamental problems for micro enterprises such as using highly - technological permanent assets are solved successfully by developing liaising relationships, advantages of franchise are also frequently used while organizing small business. Unfortunately, events of venture infestations are still rare. It should be noted that if banking institutions and liaising companies easily collaborate with large and medium enterprises, non-banking financial institutions, state programs and unions still remain a main source for small and micro enterprise financing. To overcome this, it is necessary to install a solid gear of small entrepreneurs' financial-credit risk guarantees. The National Bank of Georgia needs to establish a new policy in order to make credits for small businesses less expensive and affordable.

Development of small - enterprises is unimaginable without support of the investors participating in project for these entrepreneurs. Micro financing gives micro-enterprises the opportunity to adapt environment factors and to solve inevitable economic tasks for effective performance: to fulfill circulating capital, to form permanent assets, to create credit history for attracting of next investment resources and etc. Together with the aforesaid social effects on the economic environment is an effective instrument for the fight against poverty and unemployment, a tool of business decriminalization, material background for entrepreneur activity and the survival of the socially unprotected stratum of people. Banking micro credit is too expensive and relatively hard to get. Micro loans received from micro financing organizations are very important for small enterprises.

Financial - credit gear of micro structure is considered mutual-related and mutual - stipulated. In this transitional period to a market economy, there were new gears formed for redistributing capital and new financial relations, developing structures which carry out finance redistribution in security and cash capital markets. The role of banking as well as financial institutions appeared to be most important in this rela-

tionship. Defining from commercial banks whose main object is to get profit, microfinance institutions with their status are non-profit organizations and they carry out entrepreneur activity as much as it serves to gain their project goals. Programs sponsored by them make for it's aim social mobilization of populations' separate stratums (for instance, women's, temporarily unemployed, agriculture cooperatives and etc.), also development of small so called “business-incubators” with the support of small business.

Millions of people all over the world use services of microfinance institutions which have nearly thirty years of history and are spread throughout developed and developing countries. The strategy of financing micro-enterprises has been changed and instead of experimental programs, orientation is for more non-deficient (paying) and professional programs. The role of international organizations (USAID, the World Bank, European bank, Eurasia found and etc.) and governments of foreign countries (USA, Canada, Netherlands and etc.) is very important in the development of micro-finance services of Georgia.

Credit - financial and investment support of small business is realized in different ways:

- < Financial liaising and franchising;
- < By mutual support of small structures and by forming credit unions and other self-financing systems;
- < Micro-crediting;
- < State guarantee gears of loans;
- < Development of venture investment founds
- < By other forms.

Microfinance organizations have been in Georgia since 1997, but the first credit union was created in 2002. They do a bit for employment of poor and not very profitable social groups by giving them individual and group loans. At the beginning of 2007, approximately 13 organizations carried out microfinance activities officially, a great part of which was founded by financial aid from foreign donor organizations.

Their loan portfolio is about 51 million GEL and 43 thousand debtors, basically self-employed, develops their business using micro-loans. Laws for microfinance organizations were enforced only in July 2006, and before that, their activity was regulated by entrepreneur legislation, civil code and law on non-banking depository institutions - credit unions. The microfinance sector existed as non-governmental (nonprofit) organizations, funds and unions.

According to new legislation, a microfinance organization is founded by a juridical person (individual) as limited responsibility or A/S organizational-legal form which is registered with the National Bank of Georgia and is working under its' supervision. As defined by law, for creating a microfinance organization, money fee (payment) in working capital can't be less than 25,000 GEL and maximum total amount of micro-credit given to each debtor can't be more than 50,000 GEL. Micro-credit is defined as an amount of money given to a debtor or group of debtors for a certain period of time, to be returned, and to determine the objective of the debt, which is mentioned in a credit agreement by microfinance organizations. Microfinance organizations are prohibited to receive deposits from physical, as well as from juridical persons. Microfinance groups have the authority to realize only the following activities:

- < Give micro-loans, including consumer, hock, mortgage, non-guaranteed, group and other loans (credits) to juridical and physical persons.
- < Invest in state and public stocks.
- < Fulfill money transfer operations.
- < Implement function of insurance agent
- < Consulting related with micro-credits
- < Get loans from resident and non-resident juridical and physical persons
- < Own shares of juridical persons' working capital (its total value shouldn't be more than 15 % of organization working capital)

< Other financial services and operations determined by Georgian legislation (micro-liasing, factoring, currency exchange, establishment-realization of bonds and other operations related with them).

The terms and conditions of giving loans and the rights and duties of debtors and loaners are regulated by legislation. Releasing micro-loans is confirmed by the credit agreements, but rules and conditions of releasing loans are ascertained by the microfinance organization, here also is determined the value of interest rate, service payment and others. A loan can be individual or group, guaranteed or non-guaranteed. Microfinance organizations can monitor advisability of the loan and is obliged to keep confidentiality. The law also determines rules of creation and competence of microfinance organizations' administration organs, also organization directors' rights and duties.

Establishing microfinance organizations' regulatory norms active legislation on non-banking depository institutions - credit unions-since 2002 haven't lost their actuality. Credit unions acting as registrant enterprises of cooperative organizational-legal form, who receive deposits only from their members, releasing loans to them; fulfill permitting banking operations and their main goals are not for profit.

Small enterprises may create unions and funds to solve problems with private enterprising state support and development. It's true that small enterprises use privileges defined by Georgian legislation, but this question needs a more complex and systematic method of approach. It's clear that for the future development of this business form, micro-financing and effective performance of microfinance organizations has great meaning, what requires changes in such legislative acts as: Tax Code of Georgia, Civil Code, Law on Entrepreneur, Organic Law on NBG, Law on Commercial Bank Activity, Law on Non-Banking Depository Institutions - Credit Unions and others. It is necessary to maintain entrepreneurship supported micro-creditor organizations and state support, and also

make more active collaborations with donor organizations and international financial institutions; coordination strengthens this form of activity development. Micro-financing moves entrepreneurs' transmitting from shadow economy into legal business, increasing of country tax incomes, and future movements towards banking credit for small entrepreneurs using micro-credit. Inculcation of banking credit interest rate subsidizing and credit guarantee programs will much more hasten positive results. Regulatory norms of the financial-banking sector cannot completely reflect originality of micro-financing and is non-adequate of economy practice, working standards need to be detailed and controlling norms of this sphere must be improved, concentration and security limits of risks must be determined, tax and civil codes must more stimulate development of microfinance institutions. Interest rate issue should be regulated, besides flexibility of operational politics should not be limited. State financial role in supporting of micro-finance sector isn't clear, starting with micro-loans releasing, finishing with forming sources of non-profit microfinance organizations by received incomes (returns), financial source circulation for regulation of created relationships needs strictly defined juridical frames.

According to research on bounds of small and medium business support project, most small entrepreneurs believe that among hindrance factors of development (less accessibility at finances, non-perfection of legislative base, insufficient knowledge in management and non-existence of business strategy) the main is non-correspondent capacity of business leading. Originality of small enterprises management is determined by such factors as: size of enterprise, sphere of activity, number of employees, organizational-legal form, characteristics of product and service, organizational structure of management and etc.

In Georgia, successful micro-enterprises often fall into crisis because of the complexity of tax, custom and other regulatory legislation and the low professionalism level of small

entrepreneurs, and once again it is confirmed that value creating strategy is not enough, if it is not coordinated by a professional manager. The main criteria for this type of managers' work estimation, are how much they maintain effective performance of small enterprising structures and rise competitiveness among them. Nowadays most self-entrepreneurs use managerial consulting and/or develop qualification themselves in financing, logistic, human resource management, marketing, management and etc.

Observation of small enterprises showed that while business extension owners immediately create team of managers, organizational structure and delegate responsibilities. Henry Mintzberg concluded, that what managers do can best be described by looking at ten different but highly interrelated management roles they use at work. These ten management roles are grouped around interpersonal relationship (figurehead, leader, liaison), the transfer of information (monitor, disseminator, spokesperson), and decision making (entrepreneur, disturbance handler, resource allocator, negotiator). As managers perform these different roles, Mintzberg concluded that their actual work activities involved interacting with others, with the organization itself, and with the context outside the organization. He also proposed that as managers perform these roles, their activities include reflection (thoughtful thinking) an action (practical doing) (Robbins, P., & Coulter, 2007). Although the relationship between manager and submitters in small enterprises is immediate, and small business provides definite standards for managers: authority and influence of managers is directly connected to its professionalism and personal features; because of small numbers, managers must constantly keep in touch with employees and must manage team relationships as opposed to individuals; manager has to direct study of submitters and development of their creative skills; manager should strengthen organizational unity and react quickly to environmental changes. For this to happen, a special style of management is necessary,

which must provide small businesses with advantages such as: high maneuvering, flexibility, effective informational - communicative connection, and entrepreneur - innovative potential and other. Managers must budget their time and spend equally on work planning-organizing and control, as well as motivating and supporting employees.

Because of small business variety, acting managers are equally presented in the role of democrat, dictator, pessimist-liberal and manipulators, but for the role of a leader-an organizer is always preferred, who gives equal meaning to human relation and job fulfilling, with what helps to realize (accomplish) team management. Managing finance and marketing is a basic problem for small business management because, as a rule, in these types of structures much attention is not paid to documentation; double accounting, inadequate interpretation because of low qualification of hired specialist and personal opinions, because of the difficulty of research and calculations, making groundless decisions based on intuition is frequent.

As business-practice shows, in small structures managers unmannerly realize functions delegated to submitters or delay from delegation. It is evident that this action gives one-shot effect, but it's better to be obliged concrete tasks to submitters and at the same time execute their teaching. In scanty organizations, authority hierarchy is determined by staff, as the conditions of the immediate relation situation leaders appear rapidly, who are easily demonstrating their influence and gain to ignore nominal managers. It should be determined, that owner entrepreneurs actively and frequently incompetently intervene in managers' working process, for most of them, the small business structure is a realization of creative ideas, self-expression, and self-realization.

Most managers and entrepreneurs pay less attention to strategic approaches while managing small business structures. Many implement business projection just to attract additional investments. The necessity of strategy depends on

the business style, dynamic of sector development, stability of environment and so on. Most entrepreneurs are energy, aimed, dedicated to solving challenges, self-confident, and think that hired management and consultants help them to realize concrete tasks and often they aren't able to recognize the necessity of drawing a boundary between operative and strategic activities.

Strategic approach is future oriented and means changeability of environment, research scales and speeds of changes, while it tries to predict expectable results. Strategic management is a complex combination of decisions and activities, directed to formulate and inculcation strategy and realization goals. The strategy is based on concrete activities that allow organizational management to encourage effective performance. So, strategy is the managing plan, aiming for strengthening an organization's position, satisfying client's demand and achieving high results.

For every kind of business the question arises: what place must it take after changes, for future amendments to be used prosperity? For this it is necessary to find means and elaborate strategies, by managing them to gain organizational goals and tasks. The main organization strategy is a plan of activities allowing organization to achieve long term goals. There are three kinds of strategies: strategy of growth, strategy of stabilization and strategy of economy. Strategies of organization global activity are determined separately. Analyzing their components is based on financial parameters and product consumption characteristic (expenses and prices, liabilities and profit, assets and reserves, commodity turnover and consumer choice, privilege and guarantees, information and so on). In business strategy they are reflected as commodity, pricing, commodity, distribute-services, advertising and stimulation politics. Between business-strategy bounds must be paid attention satisfaction of consumers demand. Trade mark commodity price, level of exploitation expenses and guarantee service are important for them.

Managers of small structures require flexible thinking and dynamic action on the market while estimating strategic alternatives for elaborating the most preferable strategy by observation of environment without complex research. They provide SWOT analyze, estimate competitiveness, foresee opportunity of outsourcing, analyze of value chain, plan business operations, project organization process and etc. Development of small business is often influenced by such factors as: owners and managers generation change, resistance against organizational change for keeping traditional relationship in turbulent environmental conditions; un-development of organizational culture, non-adequacy of organizational leading, when small entrepreneurs don't pay attention to competitors of their same range while competing with large business structures. Managers determine whether organization must have a specific sphere of activity or it must implement same activity as competitors with necessary corrective amendments. Here, every organization chooses the most effective type of activity and determines strategy advantages of organization. According to Porter, differences among competitor value chains are a key source of competitive advantage (Birley, 1998).

Priorities of business development in contemporary conditions are the following: adequate react on business-environment transformation, increase regional market role in globalization conditions, reduction of commodity vital cycle, increase innovation role and etc. Globalization and newest informational technologies bring new opportunities for production expansion. The development of contemporary internet technologies make more and more opportunities for solo-professionals, making offices at their homes and often handling virtual companies in such way. Different from ordinary small business, online business requires solid initial capital investment for creating correspondence technological infrastructure and excluding producing failure, as clients give no possibility to correct it even just a little hinder as a rule provoke to lose obtained segment.

For small entrepreneurs internet network often brings a strategy advantage: it makes it easy to expand active business and possibilities to enter a market; opens wide possibilities for collaborating with business structures and partnership with any interested person; provides the realization of possibilities for small business adaptation towards market. The development of online commerce and high-technological fields changed international market conjuncture. Effective realization of market strategy basically depends on the value of adaptation to environment. Besides specialization and effectiveness, mobility and risking, organizing and mobilization of reserves still remain the most important factors for business development. Entrepreneurs provide arrangements for increasing productivity and competitiveness improve production technologies and working quality, inculcate “know-how” and etc. for making their business more effective.

Active paradigms and conception methods of approach of management have great influence on small business management. In literature system, new views of management are named an “administrating evolution”, because their basic are not aiming blindly destruction of formed structures, systems and methods, but provide its accordance and additions to new programs. Using managerial systems based on predicted changes and flexible, decisions are more and more used. They are accustomed to the unordinary and unexpectedness of future development, uncertainty and incomplete information. That's why they are called enterprising conceptions. In the conditions of system's growing complication and dynamically, innovation ideas are unified with evolutionary conception.

Organization more and more use stratgic planning and management by elements of “structure” and “culture” consolidation.

American conceptions of management was at the top in the last century, despite the important strengthening of European researches, which was assisted by the authorities of Harvard, Massachusetts, Stanford, Chicago and other busi-

ness -schools and activity of huge American consulting firms on the European market. American methods and ideas also used by the Japanese. At first they carefully, partial use them corresponded them to their managing system. In such a way American, European and Japanese methods of approach towards management were created. American theory of management is based on seven methods of approach: scientific management, classical theory of management, individualism, human relation, circumstance management, planning organizational changes, strategy management. Japanese management rejects tectonic methods of approach and is based on: joint responsibility, generalization of roles and rotation of vacancies, confidence in submitters, employee security guarantee and protection, planning career , pragmatic adaptation and rationalism, work ethics and loyalty towards colleagues. Despite European management differences, the European model of management is consolidating by rational and knowledge based decisions, social responsibility and orientation on person, inter-company negotiations and pluralistic opinions on organizational goals, creative methods of approach and self-development, de-idealization of decision making and create pragmatic strategy adequate with situation, using managing experience and technical skills, initiative and development of entrepreneur capacity. Methods of approach towards management are closely connected to the social-economic system where their forming takes place. Conceptions of management are forming in a determined period and as a rule, show non traditional ways to solve managing problems. Because of its geo-economic location, Georgia uses western and also eastern culture and both are important for Georgian management.

While today's economic system globalization, new technologies spreading and economic problems, internationalization and integration of management conceptions is noticed. Special reference is made for intellectual resources of separate organizations. Contemporary production manage-

ment is innovation-oriented and pays less attention to control, despite specialization integration of independence business sphere are widely developing, accent is transferred from scale economy to flexibility and rapidity of reaction.

Basic object of management research still remains to be a human factor of organization. Unitary, pluralistic and critical conceptions of management have been widely spread. Supporters of unitary conception consider general goal of organization as basic one and every member of organization after its sharing must subordinate private interest. While working conditions in equal rhythm every department of organization must approach general goals by realization their own goals. Pluralistic conceptions consider organization a coalition of interested teams, where each team has its own tasks which may or may not coincidence with others requirements. If unitary conception considered the interest of managers, owners and employee's despite their differences, was coincidence with management tasks, by pluralistic conception was recognized that members of organizations (despite their status) have competitive priorities why in organization often appears disagreement about organizational goals and way of their approach. Organizational disagreement isn't a sign of failure, but a natural process of interest competition.

Analysis of the weak points of unitary and pluralistic conceptions has been made. Critics don't acknowledge the effectiveness of rational methods for management and organizational tasks balance consensus of opposite interests, but they consider that motive power of rational and effective resolutions searching process is hidden fight for resources and pay much attention to group according this point of view having different influence. They hide their real interests in all its aspects and attempt pragmatic approach to bring into harmony with tasks.

Entrepreneur units are obliged to submit and implement regulatory law and recruitments of state organizations, also basic articles of international agreement according to

location and sphere of activity. During the transition period into a market economy, every government has specific goals and while achieving them according to a formed economic situation and international condition are changing methods and means of regulation. According to official reports for the Georgian government, the deregulation process is in action, but in observance of competitiveness and free choice, it only assists to develop monopoly forms in undeveloped civil society conditions. In general, the tasks of economic state regulations are the following: treat and enforce juridical base to protect entrepreneurs' interests; control legislation; make state regulations more effective and reduce expenses; reduce direct intervene and bureaucratic control over production activity; form free choice and competitive market conditions; implement right financial, tax, monetary and interest politics to maintain the stability of the country's budget; pay attention to current and perspective tasks while providing scientific- technical development and structural - investment politics; manage inflation by economic methods and growing assistance of capital accumulation; provide free moving of labor capital and protect labor legislation norms; protect consumers' rights; implement just social politics.

Nowadays, the government more intensively participates in organizational-economy regulation of production. The gear of regulation is based on main directions of structural transmitting in long term economic development programs. Administrative supervision and normative regulation of production is realized. Tools for financial regulation are being used more and more by the government. Using state foreign-economical policy assists in protecting the country's entrepreneurs' interest and rights in the international market, which together with organizational and financial support, involves arrangements for rising competition of native production. The government attempts to support business-structures to enter new markets and to expand their export operation scale. The government uses as direct (arrange-

ments to improve pricing, policy of incomes' distribution, support to enterprising development and etc.), also indirect regulation methods (taxes, subsidies, currency arrangements, quotes and etc.) for market structure development. Development of state antimonopoly policy practice hugely depends on effectiveness of antimonopoly organization work, which in Georgia, is now reorganized into the Agency of Free and Competitive. In general, state antimonopoly policies are carried out using strict state control over capital centralization (up from using financial sanctions to liquidation of monopoly structures) also in the way of liberation market relationship (reduce or cancel privileges on custom taxes and import, improve investment climate for investors, maintain small business and venture firms, support enterprise diversification and so on). Antimonopoly policies in general do not mean struggle against monopolizing, but it is strictly directed against those monopolists who destroy market structures and provide activities limiting practice towards small business.

The role of skilled staff is very important in small business, as non-effective action of each employee importantly damages enterprise structure and reduces its competitiveness. Managerial work often is not picked out from enterprise's work, so managers' work is multi-profile characterized: operative and strategic management, financial and marketing management, human resource management, production, and innovation management. Managers frequently do not have the opportunity for effective monitoring and factorial analyze of business environment and estimation of enterprise structure interior reserves is also superficial. Say nothing about non-rational distribution of authority and non-existent organizational structure. Basic managerial functions are also realized at a primitive level. Only a small number of managers care about informational floats treatment and innovation approach, but inevitability of improving management in small enterprise structures is recognized by everyone. Firms processing in the high - technological sector can't

find suitable staff, even in mass unemployment conditions, because some of them have been disqualified and a great part of them refuse the offered salary and career perspective - for professionals' working in the large structures is more attractive. This process is influenced by observer practice of staff choosing and hiring in small business, which is mostly informal. It's true that international organizations support creating business-incubators in every possible way, but entrepreneurs' attitudes towards this sector is still skeptical.

Despite that small business structures participation in legal business has increased in the last period, the conditions of unimproved taxing and financial system shadow economy share is still noticeable in Georgia. Because of small business managements, un-development increases the following negative events: diversification policy directing becomes harder because of little opportunities to overcome the difficulties of entering and leaving from one sector to another, effective investment attraction opportunities are reduced while groundless business-strategy conditions; bankrupt risks increase because of uncompetitive managerial decisions; the quality of using business consulting is low and it is often used not to make optimal decisions but to document already made decisions; business education systems in Georgia can't satisfy the requirements of small businesses, because entrepreneurs have not formulated demands for managerial education, and active staffers' re-training systems are not market adequate. It is clear that solving the aforesaid problems is impossible without achieving concerning consensus of stakeholders and a strong will.

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Scenario Logic and Probabilistic Models of Bribes

E. D. Solojentsev

Abstract

True logic of our world is calculation of probabilities.

Maxwell, J. C.

The scenario logic and probabilistic (LP) bribe models for the department “Economic crimes” of towns are offered with the purpose of revealing, estimating and analyzing bribes on the basis of the statistical data. The following bribe LB-models are described: 1) at the institutions according to the results of their functioning, 2) of the officials on the basis of the descriptions of their behavior, 3) of the institution and of the officials on the basis of the analysis of the service parameters. Examples of identifying and of the analysis of the bribe LP-models according to the statistical data are given here. Problems of bribes and corruption are of great computing complexity and are solved only by means of special Software.

სცენარის ლოგიკა და ქრთამის ალბათობითი მოდელები

ე.დ. სოლოჟენტსევი

სამყაროს ჭეშმარიტი ლოგიკა ალბათობების გამოთვლა არის.
დ.კ. მაქსველი

ეკონომიკური დანაშაულების საქალაქო დეპარტამენტისთვის სცენარის ლოგიკასა და ქრთამის ალბათობითი მოდელების წარმოდგენა მიზნად ისახავს ქრთამის აღების გამოაშკარავებას, შეფასებასა და ანალიზს სტატისტიკურ მონაცემებზე დაყრდნობით. ქრთამის ლოგიკური და ალბათობითი LB მოდელის აღწერა წარმოდგენილია: 1) ორგანიზაციებში, მათი ფუნქციონირების შედეგების მიხედვით, 2) მაღალჩინოსნების მიერ მათი ქცევის აღწერისა და ანალიზის საფუძველზე, 3) ორგანიზაციების და მაღალჩინოსნების მომსახურების პარამეტრების გაანალიზების საფუძველზე. ნაშრომში მოყვანილია სტატისტიკურ მონაცემებზე დაყრდნობით, ქრთამის აღების ლოგიკურ-ალბათობითი მოდელების ამოცნობის და გაანალიზების მაგალითები. ქრთამის აღება და კორუფცია თავისი ხასიათით გამოირჩევა გამოთვლითი სირთულით. დღევანდელ სინამდვილეში ამ პრობლემის გადაჭრა ხდება სპეციალური კომპიუტერული პროგრამების საშუალებით.

Problems of bribes and corruption have been actual at all times and in all countries. Now there are a lot of articles on www.vzyatka.ru about the flourishing of bribes and about the corruption. Books and articles on corruption and on bribes (Albrecht, Wernz, Williams, Fraud, 1995, p. 396; Satarov, 2004, p. 368), on social statistics (Eliseeva, 2004, p. 656; Heckman & Leamer, 2002) have thorough substantial descriptions and analysis, as well as a great number of various examples, comments on the law and on the criminal codex, but they do not contain any mathematical models of bribes.

The adequate mathematical apparatus is needed for the solution of social and organizational problems, including problems of revealing various frauds, bribes and corruption. It must be based, , according to John von Neumann and Norbert Wiener (Solozhentsev, 2006, p. 560), on logic, on discrete mathematics and on combination theory.

Such adequate mathematical apparatus is being developed and it is called “Logic and probabilistic (LP) theory of risk with the groups of incompatible events” (Solozhentsev, 2006, p. 560; Solozhentsev, 2004, p. 391). It has been tested for the estimation and for the analysis of credit risks, security portfolio risk, the risk of the loss of quality, the risk of non-success of the management of the company. The LP-models of risk have a high quality. For example, the credit LP-models of risk have shown the accuracy almost two times higher, the robustness almost seven times greater than other methods and also an absolute transparency in classifying than other methods.

In the present work an attempt has been made to use the LP-approach and the LP-calculus (Solozhentsev, 2006, p. 560; Solozhentsev, 2004, p. 391) for the solution of the actual problem - for the estimation and analysis of the probability of bribes and corruption.

1. Axioms of the bribe theory

Corruption is regarded as the basic kind of the so called shadow economy. More often corruption implies the reception of bribes and illegal monetary incomes by state bureaucrats who extort them from citizens for the sake of personal enrichment. That is a brazen violation of public morals and of the norms of law.

For the construction of the system and the technique of the struggle against bribes and corruption the following axioms have been accepted (Solozhentsev, 2006, p. 560; Solozhentsev, 2004, p. 391) :

- < Under the pressure of circumstances everyone may swindle if valuables are not guarded well enough and if it is possible to conceal the trickery for some time and when the control over the validity of the decisions taken is insufficient.
- < Without a quantitative estimation and without the analysis of the probability of bribes it is impossible to struggle against the swindle, bribes and corruption.
- < Each commercial bank or company is capable of a swindle or corruption if there is no transparency in their business and no control over their activities.
- < Behind the non-transparency of the techniques of the estimation of credit risks and ratings of the banks and of the borrowers there may be bribes and swindles.
- < Complexity of the organizational structure of an institution or company can be a sign of swindle and corruption.

Concepts of the probability of bribes and corruption are close to those of reliability and safety in engineering and they are also close to the notion of risk in economy, in business and in banks. Most frequently bribes take place when people receive licenses (in education, tourism, medicine, construction), sanctions (GAI, customs), in education (certificates, diplomas, examinations), registration (bodies of the Ministry of Internal Affairs, embassy, bodies of local authorities), and etc.

The scenarios and the technique of a bribe are various for the ministry, for the mayoralty, for institutions, for companies, for banks, for officials, for doctors, for teachers, etc. The Bribe implies two objects: the briber and the bribe-taker, either of whom has his benefit. The briber solves his problem faster, more qualitatively, receives privileges, bypasses the law, etc. The bribe-taker has monetary or material benefit, etc. We use the following terms: probability of corruption and of a bribe, probability of success and of non-success, probability of the absence or of the presence of a bribe, probability of a good or bad project (of an object, of an official, of an institution) We consider those terms from the point of view of the size of the probability of a bribe.

For a quantitative estimation and for the analysis of the bribe probability we use the logical and probabilistic non-success risk LP-theory (LP-theory) with groups of incompatible events (GIE) (Solozhentsev, 2006, p. 560; Solojentsev, 2004, p. 391; Solojentsev, Karashev, Solojentsev, 1999, p. 120), and some bribe LP-models are

constructed on the basis of the statistical data. The paper is one of the first mathematical publications on the probability of bribes and does not claim to consider all the aspects of this complex problem or to develop all the scenarios of bribes. Here we just give the description and the construction of the bribe model, try to give the estimation and the analysis of the probability of a bribe, and hardly ever touch upon the social, legal and organizational problems of bribes.

2. The LP-theory of a bribe with groups of incompatible events

Events and probabilities. An event of a bribe is described by signs and their grades, which happen to be random variables and are regarded as the logic variable of casual sign-events and grade-events having certain probabilities. The sign-events are connected by the logic connections OR, AND, NOT and can have cycles. Grade-events for a sign make a group of incompatible events (GIE) (Solozhentsev E., 2006, p. 560; Solozhentsev E., 2004, p. 391).

Signs are the characteristics of an object (of a process, of a project) for which special measurement scale-grades are used: the logical scale (the truth\the lies, 1\0), the qualitative scale (high, average and low salary), the numerical scale (intervals [a, b], [b, c]), etc. Generally, the grades are linearly disordered and it is impossible to tell whether grade 3 is worse or better for the final event than grade 4.

The logical variable Z_j corresponding to a sign-event, is equal to 0 with the probability P_j if the sign j testifies that a bribe has taken place there, and it is equal to 1 with the probability $Q_j=1-P_j$ in case of the absence of a bribe. The logical variable Z_{jr} corresponding to the grade r for the sign j , is equal to 0 with the probability P_{jr} and is equal to 1 with the probability $Q_{jr}=1-P_{jr}$. The vector $Z(i)=(Z_1, \dots, Z_j, \dots, Z_n)$ describes the object i on the basis of statistics. When the object i is given instead of the logical variables $Z_1, \dots, Z_j, \dots, Z_n$, it is necessary to substitute the logical variables Z_{jr} for the grade of the sign of this object.

The L-function of a bribe in a general way is as follows

(1)

$$Y=Y(Z_1, Z_2, \dots, Z_n).$$

The P-function of a bribe in a general way is

(2)

$$P_i(Y=1|Z^{(i)})=P(P_{1,\dots},P_{j,\dots},P_n), i = 1,2,\dots,N$$

Three probabilities have been considered for every grade-events in GIE (Fig. 1): P_{2jr} is a relative frequency in the statistics; P_{1jr} is a probability in GIE; P_{jr} is the probability, substituted into (2) instead of the probability P_j . We will determine these probabilities for the j -th GIE:

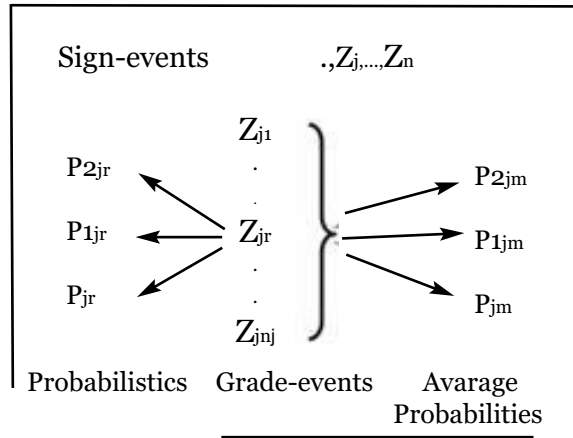


Fig.1. Probabilities in the groups of incompatible events

(3)

$$P_{2jr} = P\{Z_{jr} = 1\}; \sum_{r=1}^{N_j} P_{2jr} = 1; r = 1, 2, \dots, N_j;$$

(4)

$$P_{1jr} = P\{Z_{jr} = 1 | Z_j = 1\}; \sum_{r=1}^{N_j} P_{1jr} = 1; r = 1, 2, \dots, N_j;$$

(5)

$$P_{jr} = P\{Z_j = 1 | Z_{jr} = 1\}; r = 1, 2, \dots, N_j, j = 1, 2, \dots, n.,$$

where n is the number of signs; N_j is the number of grades in the j -

sign, the vertical hyphen (|) is read provided.

The average values of the probabilities P_{2jr} , P_{1jr} and P_{jr} for the graduation in GIE are equal to:

(6)

$$P_{2jm} = 1 / N_j; P_{jm} = \sum_{r=1}^{N_j} P_{jr} P_{2jr}; P_{1jm} = \sum_{r=1}^{N_j} P_{1jr} P_{2jr}.$$

We will estimate the probabilities P_{jr} during the algorithmic iterative identification of the P-model of the bribe on the basis of the statistical data. In the beginning it is necessary to determine the probabilities P_{1jr} satisfying (4) and to pass from the probabilities P_{1jr} to the probabilities P_{jr} . The number of the independent probabilities is equal to:

(7)

$$N_{ind} = \sum_{j=1}^n N_j - n.$$

The probabilities P_{jr} and P_{1jr} are connected with the Bayes formula for the case of a limited quantity of information by way of the average probabilities P_{jm} and P_{1jm} [5]:

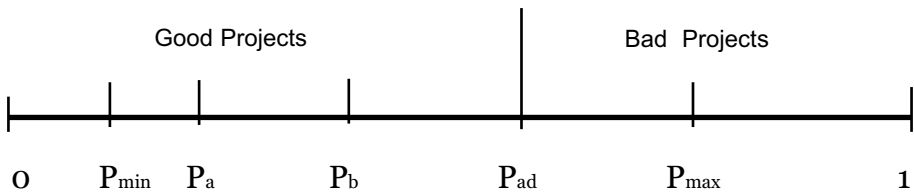
(8)

$$P_{jr} = P_{1jr} * (P_{jm} / P_{1jm}); r = 1, 2, \dots, N_j; j = 1, 2, \dots, n.$$

Identifying the bribe LP-model on the basis of statistical data. The problem of the identification of the bribes LP-model is solved by the algorithmic methods [5, 7]. The following scheme of solving the problem is proposed here. Let the probabilities for the grades P_{jr} , $r=1,2,\dots,N_j$; $j=1,2,\dots,n$ be known as a first approximation; and the risks P_i , $i=1,\dots,N$ for the objects in statistics be also calculated, each of which might be accompanied by bribes. In the statistics of good projects the symbol N_g is used and in the statistics of bad projects the symbol N_b is used. We will determine the admitted risk P_{ad} (Fig. 2) so that the number of projects accepted by us without bribes (the good projects) N_{gc} had the risk lesser than the admitted one and, accord-

ingly, the number of the projects with bribes (the bad projects) $N_{bc}=N - N_{gc}$ had the risk which exceeded the admitted one. At the step of optimization we shall change the probabilities $P_{jr}, r=1,2,\dots,N_j; j=1,2, \dots,n$ in such a way that the number of the recognizable projects might be increased. The variables P_{ad} and N_{gc} are connected unequivocally. In the algorithm of the problem it is more convenient to use N_{gc} and to determine the admitted risk P_{ad} .

Fig. 2. The scheme of the classification of projects



The condition $P_i > P_{ad}$ specifies the following types of projects: N_{gg} - denotes the projects which are good according to both - their methods and the statistics; N_{gb} - denotes the projects which are good according to their methods and bad by the statistics; N_{bg} - denoted the projects which are bad by their methods and good by the statistics; N_{bb} - denotes the projects bad by both the methods and the statistics. The risks of the projects N_{gg} , N_{bb} , N_{gb} , N_{bg} move relative to P_{ad} at the change of P_{jr} . At the transition of some projects which are bad to the right from P_{ad} on value of the risk, the some number of projects passes to the left. The change P_{jr} which translates the projects N_{gb} and N_{bg} through P_{ad} towards each other will be the optimal one.

The problem of the identification of the P-model of the bribe is formulated like this (Solozhentsev E., 2006, p. 560; Solojentsev E., 2004, p. 391).

The statistics on the bribes, having N_g good and N_b bad projects and the bribe P-model (2) have been assigned. It is required to determine the probabilities $P_{jr}, r=1,2,\dots,N_j; j=1,2,\dots,n$ grade-events and the admitted risk P_{ad} , dividing the projects into the good and bad ones. The goal function is as follows: the number of the projects which are to be correctly classified should be maximal

$$(9) \quad F = N_{gg} + N_{bb} \rightarrow \underset{P_{jr}}{MAX},$$

From expression (9) it follows that the accuracy of the P-model of the bribe in the classification of the good objects E_g , the bad

objects E_b and as a whole E_m is equal to
(10)

$$E_g = N_{gb} / N_g; E_b = N_{bg} / N_b; E_m = (N - F) / N.$$

Restrictions:

1) The probabilities P_{jr} should satisfy the condition:

(11)

$$0 < P_{jr} < 1, j = 1, 2, \dots, n; r = 1, 2, \dots, N_j.$$

2) The average risks of the projects on the P-model and according to statistics should be equal; at identifying the P-model of risk we shall correct the probabilities P_{jr} on a step by the formula

(12)

$$P_{jr} = P_{jr} * (P_{av} / P_m); j = 1, 2, \dots, n; r = 1, 2, \dots, N_j,$$

where: $P_{av} = N_b / N$ is the average risk according to statistics; P_m is the average risk on the model.

3) The admitted risk P_{ad} should be determined at the given factor of asymmetry of the recognition of the good and bad projects, equal to

(13)

$$E_{gb} = N_{gb} / N_{bg}.$$

The formula for identifying the bribe risk LP-model

(14)

$$\Delta P_{1_{jr}} = K_1 * \frac{N_{opt} - N_v}{N_{opt}} * K_3 * P_{1_{jr}}, j = 1, 2, \dots, n; r = 1, 2, \dots, N_j,$$

where: K_1 is the factor equal approximately to 0,05; N_{opt} , N_v are the number of optimization and the number of the current optimization respectively, K_3 is a random number in the interval $[-1, +1]$. During the optimization the size $P_{1_{jr}}$ tends to zero.

The analysis of bribe probability. Let the bribe P-model and the probabilities P_{jr} be defined and known. We shall determine the contributions of sign-events and grade-events into the probability of the bribe for the project and for a set of projects, and also into the accuracy of the bribe LP-model. For this purpose we shall calculate the differences between the values of the characteristics for the optimal model and if the probabilities are endowed with the corresponding grade-events of zero values (Solozhentsev E., 2006, p. 560; Solojentsev E., 2004, p. 391).

The contribution of a sign (of all the grades of a sign) into the probability of a bribe for the project i

(15)

$$\Delta P_j = P(i) - P(i) \Big|_{P_j=0}, \quad j = 1, 2, \dots, n.$$

The contribution of an attribute into the average probability of the bribe P_m of a set of projects

(16)

$$\Delta P_{jm} = P_{jm} - P_{jm} \Big|_{P_j=0}, \quad j = 1, 2, \dots, n.$$

The contribution of an attribute into the goal function F_{\max}

(17)

$$\Delta F_j = F_{\max} - F \Big|_{P_j=0}, \quad j = 1, 2, \dots, n.$$

Contributions of grades into the goal function F_{jr} will be calculated by us by analogy with (10) as mistakes of the classification of projects on every grad-event:

(18)

$$E_{jrg} = N_{jrgb} / N_{jrg}; E_{jrb} = N_{jrbg} / N_{jrb};$$

$$E_{jrm} = (N_{jrgb} + N_{jrbg}) / N_{jr},$$

where N_{jrgb} , N_{jrbg} , N_{jr} are the numbers of the non-correct good and bad project and of all the projects with the grade r of the sign j .

By the results of the analysis of the contributions into the probability of the bribe grades, of the signs, of the project or a set of projects, the bribe model for the increase of its accuracy is optimized.

3. The bribe LP-model at an institution

The institution making decision on some projects (on the cases or affairs of the citizens). There are a lot of projects. The projects are either successful (good) or non-successful (bad). The reasons for the non-success of the projects are the unjustified sanctions, given out as a result of bribes.

Elements of the scenario and of the bribe LP-model are the functional departments $Z_1, \dots, Z_j, \dots, Z_n$, each of which has N_j officials who make decisions.

Generally the object with the elements $Z_1, \dots, Z_j, \dots, Z_n$ is complex as it includes connections OR, AND, NOT, and repeated elements and cycles. Officials in the j -department $Z_{j1}, \dots, Z_{jr}, \dots, Z_{jN_j}$ are GIE. The official, making a decision, signs the corresponding document. The construction of the bribe LP-model consists in the calculation of the probabilities P_{jr} , $j=1,2,\dots,n$; $r=1,2,\dots, N_j$ with which officials take bribes on the basis of the statistics from N successful and non-successful projects.

We shall consider the bribe LP-model, say, of a bank. The statistics about the success of the credits is used. The reasons of the non-success of the credits are explained by bribes.

Let the bank has five functional groups of the officials who take decisions on giving out the credits. The logic variables Z_1, Z_2, Z_3, Z_4, Z_5 correspond to these functional groups. These groups have accordingly N_1, N_2, N_3, N_4, N_5 officials taking decisions. The number of the officials in groups coincides with the number of the grades in GIE.

The given credits are either successful (grade 1) or non-successful (grade 0). There are documents on the given credits where the officials making decision fix their signatures.

The greatest number of any possible combinations of the client's passing through the institution and the bribes is equal to

(19)

$$N_{\max} = N_1 + N_2 + N_3 + N_4 + N_5.$$

The logic function of the bribes in the perfect disjunctive normal form (PDNF) has Nmax of the logical terms and we may write

(20)

$$Y = Z_1 Z_2 Z_3 Z_4 Z_5 \vee \overline{Z_1} Z_2 Z_3 Z_4 Z_5 \vee Z_1 \overline{Z_2} Z_3 Z_4 Z_5 \vee \dots \vee \overline{Z_1} \overline{Z_2} \overline{Z_3} \overline{Z_4} \overline{Z_5}.$$

Every logic variable from Z_1, Z_2, Z_3, Z_4, Z_5 or its denial (the line over a variable) goes into any conjunct. All the conjuncts are orthogonal in pairs, that is PDNF is the orthogonal form of the logic function. At calculation of the probability of the event Y we put in (20) the probabilities P_1, P_2, P_3, P_4, P_5 instead of the events Z_1, Z_2, Z_3, Z_4, Z_5 and the sign "OR" replace by "+".

PDNF is the cumbersome recording the logic function. In really the logic bribe model may be recorded simpler if taking into account of the structure of bank departments and their connection. It can be of any kind. To be specific, we will assume that the structure of the risk model is presented by the "bridge" (Fig. 3).

The officials from Z_1 and Z_2 check the maintenance of the credits, and the officials from Z_3 and Z_4 take the decision on the size and on the terms of the credit. The top officials (chiefs) from Z_5 control the process. The client visits one of the top officials who either advises the client or takes a bribe and directs the client to the officials from the groups Z_3 or Z_4 who take bribes too.

The logic model (L-model) of bribes in disjunctive normal form (DNF) (the records of the logic functions without the brackets) on the basis of the shortest way of functioning is

(21)

$$Y = Z_1 Z_3 \vee Z_2 Z_4 \vee Z_1 Z_5 Z_4 \vee Z_2 Z_5 Z_3.$$

The probabilistic model (P-model, P-polynomial) of bribes, obtained after the orthogonalisation of the logic function (19)

(22)

$$P = p_2 p_4 + p_1 p_3 + q_1 p_2 p_3 q_4 p_5 + p_1 q_2 q_3 p_4 p_5 - p_1 p_2 p_3 p_4.$$

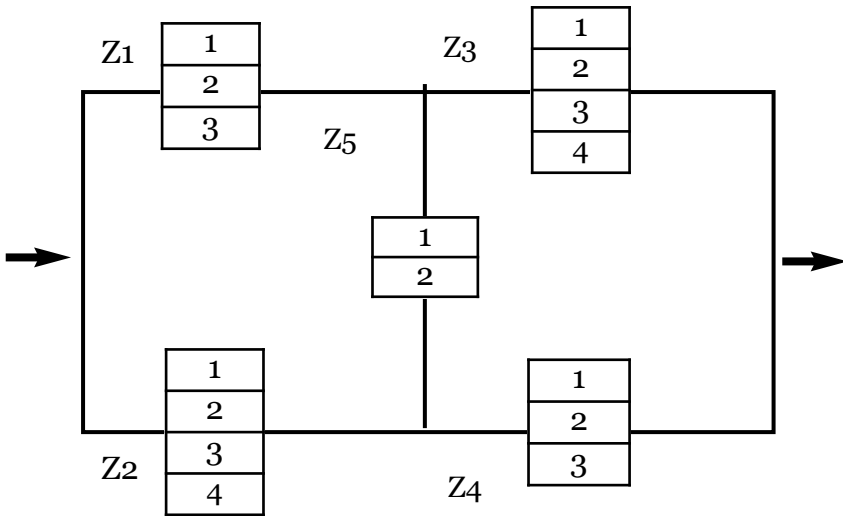


Fig. 3. Structural model of the bribes of the “bridge” type

Example 1. For training the bribe P-model the statistics from 1000 credits is used (700 are good and 300 are bad). The average bribe risk is equal to $P_{av}=300/1000=0,3$. Five sign-events have from 4 to 11 grades; all in all there are 40 grades.

As a result of training, the probabilities P_{jr} and P_{1jr} for all grade-events have been obtained and the following parameters of the bribe LP-model have been calculated: the goal function is equal to $F_{max}=720$ and the admitted risk is equal to $P_{ad}=0,3094$.

Some results of computing researches are given in Tables 1 and 2. The probabilities P_{2jr} and P_{1jr} of the grades though they make a total 1 in GIE, can differ essentially (Table 2). The probabilities of bribes (probabilities P_{jr}) differ more than 10 times. The sign-events 1 and 4 have the maximum average probabilities P_{jm} . The same events bring the maximum contributions to the average risk P_m . The average probabilities P_{jm} for sign-events differ nearly two times.

Table 1.
Average probabilities of bribes for the groups of officials

Groups, j	Probabilities, P _{jm}	Probabilities, P _{1jm}	Number of officials, N _j
1	0.478113	0.249540	4
2	0.348310	0.075949	10
3	0.298833	0.133823	5
4	0.388857	0.116348	11
5	0.291868	0.091775	10

Table 2.
Probabilities of bribes of officials

Numbers of grades	Probabilities, P _{1r}	Probabilities, P _{11r}	Frequencies, P _{21r}
Group Z1			
1	1.0	0.522300	0.274
2	0.596084	0.311103	0.269
3	0.248278	0.129579	0.063
4	0.070927	0.037017	0,394
Group Z2			
1	0.0	0.0 0,0	
2	0.687703	0.149933	0.014
3	0.227359	0.0495688	0.002
4	1.0	0.218209	0.054
5	0.510577	0.111316	0.017
6	0.704722	0.153643	0.086
7	0.570149	0.124304	0.057
8	0.448856	0.097859	0.224
9	0.434821	0.094799	0.187
10	0.001675	0.000365	0.359

4. The bribe LP-model on the basis of the description of the officials' behavior

A bribe is not a crime which is made a parade. There is no question about "corpus delict" at a robbery of a bank which is witnessed by the employees or by the clients. A bribe differs from any other kinds of crime by the difficulty of its revealing. However, bribes have a mass character and there are many data on bribes both in judicial law-courts, and in the controlling units.

For each type of bribes it is possible to find signs (Albrecht, Wernz, Williams, *Fraud*, 1995, p. 396; Solozhentsev E., 2006, p. 560) which are associated with a similar crime. Each of such signs has at least 2 grades. The P-model bribe can be identified on the statistical data.

The investigation of the bribe can be carried out only in the case when there are serious reasons to believe that the bribe had actually taken place in the past. The value of this “seriousness” can be estimated quantitatively on the probability of the bribe, and the final decision is taken by the head of the office.

Special signs testify to the bribes taken by the officials (doctors, teachers). There are the following signs of the person's unusual behavior:

- < Age;
- < Duration of the period of work at an institution or in a company;
- < Purchase of a house, of an apartment, of a summer residence, of a car, etc. at the price not adequate to the level of the wages;
- < Debts;
- < Financial inquiries;
- < Predisposition to gambling;
- < The way of life beyond the habitual frameworks;
- < Unusual behavior;
- < Presence of complaints;
- < Vague or criminal past;
- < Dishonest or unethical behavior at the office;
- < Absence of the division of duties;
- < Absence of independent checks;
- < Absence of the proper authority;
- < Absence of the necessary documents and records;
- < The neglect of the existing rules;
- < The inadequate system of document circulation, etc.

Elements of the scenario and of the bribe LP-model, listed above, are presented by the signs $Z_1, \dots, Z_j, \dots, Z_n$, each of which has several grades. The grades for the j -sign of $Z_{j1}, \dots, Z_{jr}, \dots, Z_{jN_j}$ form GIE. The bribe scenario of the official is described as follows: a bribe can take place if any sign-event takes place or if any two sign-events or all sign-events take place. The scenario of a bribe is given in Fig.4 in the form of a structural graph.

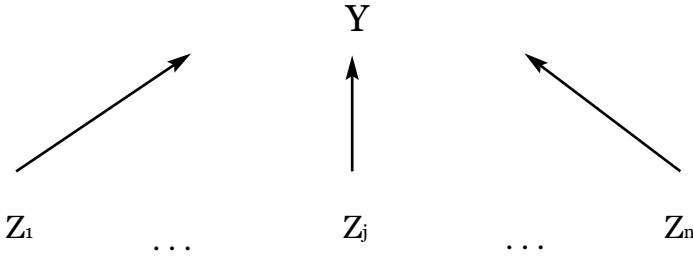


Fig.4. Structural model of bribe (-the logical circuit OR)

The construction of the bribe LP-model consists in the calculation of the probabilities P_{jr} , $j=1,2,\dots,n$; $r=1,2,\dots,N_j$ (with which the official takes bribes) on the statistics of the bribe facts established by the courts.

The bribe L-function (the bribe LP-model) in DNF is (Solozhentsev E., 2006, p. 560; Solojentsev E., 2004, p. 391)

(23)

$$Y = Z_1 \vee Z_2 \vee \dots \vee Z_j \vee \dots \vee Z_n$$

The bribe L-function in the equivalent orthogonal form (ODNF) after the orthogonalization (23) is

(24)

$$Y = Z_1 \vee Z_2 Z_1 \vee Z_3 Z_2 Z_1 \vee \dots$$

The bribe P-function (model, polynomial) is

(25)

$$P = p_1 + p_2 q_1 + p_3 q_1 q_2 + \dots$$

“Arithmetics” in the bribe P-model is such that for the final event the bribe probability value is within the limits of $[0,1]$ at any values of the probabilities of initiating events. For every grade-event in GIE (Fig. 1).we use the three probabilities P_{2jr} , P_{1jr} , P_{jr} , introduced before.

The maximum number of different bribes is equal to

(26)

$$N_{\max} = N_1 + N_2 + \dots + N_j + \dots + N_n,$$

where $N_1, \dots, N_j, \dots, N_n$ are the numbers of the grades in the signs. If the number of signs is equal to $n=20$ and each sign has $N_j=5$ grades, the number of different bribes (conjuncts in a perfect disjunctive normal form - PDNF) equals the astronomical number $N_{\max}=520$, that explains the difficulties of the struggle with bribes and corruption. (PDNF comprises various conjuncts, each of which comprises all the variables Z_1, Z_2, \dots, Z_n or their denials. The conjuncts are connected by the logical operation OR).

The bribe LP-model (23-25) describes all kinds of bribes and is the most complete and accurate one. In some cases, however, it is not necessary to take into account all possible bribes. For example, it is known from the statistic data that there were bribes when one or two events occurred from Z_1, Z_2, \dots, Z_n . Then, to simplify the model, you should use the bribe model for a limited number of bribes.

If we have a logical bribe model of four elements

(27)

$$Y = Z_1 \vee Z_2 \vee Z_3 \vee Z_4,$$

then for a limited number of bribes, when either one or two events occur, the bribe model will be recorded as

(28)

$$Y = Z_1 \overline{Z_2} \overline{Z_3} \overline{Z_4} \vee Z_2 \overline{Z_1} \overline{Z_3} \overline{Z_4} \vee Z_3 \overline{Z_1} \overline{Z_2} \overline{Z_4} \vee Z_4 \overline{Z_1} \overline{Z_2} \overline{Z_3} \vee Z_1 Z_2 \overline{Z_3} \overline{Z_4} \\ \vee Z_1 Z_3 \overline{Z_2} \overline{Z_4} \vee Z_1 Z_4 \overline{Z_2} \overline{Z_3} \vee Z_2 Z_3 \overline{Z_1} \overline{Z_4} \vee Z_2 Z_4 \overline{Z_1} \overline{Z_3} \vee Z_3 Z_4 \overline{Z_1} \overline{Z_2}$$

In the bribe L-model, all the logical summands are orthogonal in pairs, which allows the bribe P-model (P-polynomial) to be written directly:

(29)

$$p\{Y\} = p_1 q_2 q_3 q_4 + p_2 q_1 q_3 q_4 + p_3 q_1 q_2 q_4 + p_4 q_1 q_2 q_3 + p_1 p_2 q_3 q_4 + \\ + p_1 p_3 q_2 q_4 + p_1 p_4 q_2 q_3 + p_2 p_3 q_1 q_4 + p_2 p_4 q_1 q_3 + p_3 p_4 q_1 q_2.$$

Example 2. The author did not have any factual data about the bribes, established by the courts on criminal cases. The modeling data were used as the statistical data. From 1000 officials, suspected of bribes, against whom suits were brought, only 300 were condemned, and 700 were considered to be innocent. Thus, the average risk of bribes is equal to $P_{av}=300/1000=0,3$. The suspected officials are described by $n=20$ signs whose total sum is 94 grades.

The identification of the bribe \hat{A} -model (25) consists in defining the probabilities P_{jr} , $r=1,2,\dots,N_j$; $j=1,2,\dots,n$ for grade-events. The bribe probability for every suspected official is calculated on the optimization step and is compared to the allowable risk P_{ad} . The suspected official is either bad or good. The goal function is formulated as follows: the number of the correctly classified suspected officials should be as great as possible.

Contributions of the grade-events into the accuracy of the bribe LP-model will be considered by us by the example of sign-events (Table 3) of the signs Z_2 and Z_{13} for the optimal identified bribe LP-model ($F_{max}=826$). The grade frequencies for all P_{2jr} , for the bad P_{20jr} and for the good P_{21jr} , the probabilities of the grad-events P_{1jr} and P_{jr} ; for the mistakes of recognition on grades for all E_{jr} , for the bad E_{0jr} and for the good E_{1jr} officials who are under suspicion, are summerized in Table 3;

Table 3.
Probabilities and errors of recognition for grade-events of suspected officials

P_{2jr}	P_{20jr}	P_{21jr}	P_{1jr}	P_{jr}	E_{jr}	E_{1jr}	E_{0je}
Sign Z_2							
0.014	0.007	0.007	0.010	0.019	0.214	0.429	0.0
0.002	0.001	0.001	0.070	0.014	0.500	1.0	0.0
0.054	0.032	0.022	0.194	0.038	0.278	0.682	0.0
0.017	0.005	0.012	0.159	0.031	0.412	0.5	0.2
0.086	0.038	0.048	0.145	0.028	0.256	0.417	0.053
0.057	0.019	0.038	0.095	0.019	0.228	0.289	0.105
0.224	0.066	0.158	0.067	0.013	0.169	0.196	0.106
0.167	0.056	0.131	0.053	0.010	0.203	0.183	0.250
0.359	0.076	0.283	0.016	0.003	0.114	0.081	0.237
Sign Z_{13}							
0.0190	0.080	0.110	0.283	0.027	0.237	0.345	0.087
0.511	0.142	0.369	0.233	0.021	0.186	0.201	0.148
0.248	0.065	0.183	0.093	0.008	0.113	0.082	0.200
0.028	0.007	0.021	0.346	0.032	0.178	0.238	0.0
0.023	0.006	0.017	0.044	0.004	0.217	0.117	0.5

The contribution of the sign-event into the probability of a bribe by an official is proportional to the probability P_j , $j=1,2,\dots,n$, which equals the probability of the grade-event P_{jr} . The probabilities P_{jr} of sign grades differ more than 10 times. The grade errors E_{jr} in the classification of bribes differ almost 5 times.

The LP-analysis of the bribe model is carried out with the use of (15-18). For each sign j (Table 4): the average values of probabilities P_{1jm} and P_{jm} , were determined and also the decrease of the number of the identified good and bad suspected officials F_j . When this sign was excluded from the bribe model, the bribe LP-model was retrained. The decrease of the number of the suspected officials that could be recognized is determined in relation to the optimal trained bribe model with all signs.

Table 4.

The contributions of the signs into the accuracy of the bribe model

Signs, j	Number of grades, N_j	P_{1jm}	P_{jm}	F_j
1	4	0.272384	0.020226	-64
2	10	0.063346	0.012359	-27
3	5	0.098475	0.009327	-18
4	11	0.090820	0.020927	-26
5	10	0.080377	0.017593	-20
7	5	0.272148	0.022466	-20
7	5	0.206945	0.018549	-6
8	4	0.266619	0.017736	-6
9	4	0.183897	0.014253	-10
10	3	0.318015	0.018295	-10
11	4	0.251871	0.018974	0
12	4	0.247375	0.017166	0
13	5	0.206718	0.018900	-16
14	3	0.235637	0.014733	-2
15	3	0.261648	0.017591	-8
16	4	0.341959	0.021975	-2
17	4	0.289853	0.018739	0
18	2	0.482499	0.017417	0
19	2	0.508613	0.018138	0
20	2	0.750896	0.018326	-2

The maximum contribution into the accuracy of the suspected officials is brought with the sign-events: $Z_1, Z_2, Z_4, Z_5, Z_6, Z_3, Z_{13}$. The zero contribution is brought by the sign-events $Z_{11}, Z_{12}, Z_{17}, Z_{18}, Z_{19}$; excluding sign-events 11,12,17 and 18 reduces the number of the identified suspected only by 4.

The accuracy of the bribe LP-model changes with the change of the number of grades in a sign. The sign Z_2 which in the initial variant had 10 grades was investigated. After retraining the bribe model, the following results were obtained: in the absence of the sign $F_{\max}=800$; with two grades $F_{\max}=808$; with four grades $F_{\max}=812$; with ten grades $F_{\max}=824$; with hundred grades (in that case there were seventy empty grades) $F_{\max}=828$.

We built a graph of bribe probabilities for 1000 suspected officials before and after sorting according to the value of the probability. Approximately 15 % of the suspected officials had small bribe probabilities and are good, and 15 % of suspected officials had high bribe probabilities and are very bad. It shows that it is necessary to classify the suspected officials according to the bribe probability value into four classes.

5. The bribe LP-model on the basis of the analysis of service parameters

Let's estimate the bribe probability using the statistics of the service parameters. These parameters can be, for example, the time it takes the official to solve the problem or it takes the dentist to make a denture (from the very beginning till the end of the process). Such statistics should contain the service precedent number, sufficed for the construction of the discrete or analytical distribution function.

Let us have the statistics (service times) for N clients Y_i , $i=1,2,\dots,N$. If we construct a normal distribution law for the parameter Y_i with the average value and the dispersion, it will lead to an essential decrease of the bribe estimation accuracy.

The service parameter can have either a continuous or discrete values. In both cases, with the purpose of increasing the bribe model adequacy and using the apparatus of LP-calculation, we shall build the discrete distribution on the chosen intervals of splitting the parameter values. We give the grade number for each interval. The grades make group of incompatible events (GIE). The probabilities of grade-events are determined by the formula

(30)

$$P_j = N_j/N,$$

where: N_j is the number of the parameter values in the statistics with the given grades; N is the number of the parameter values in the statistics.

The service parameter has the average value Y_m and the allowable value Y_{ad} (Fig. 5). The probability $P\{Y < Y_{ad}\}$ will be named by us the bribe risk. The scenario of the bribe is formulated as follows: if the service parameter is greater (smaller) than the allowable value, then we suspect that there must have been a bribe.

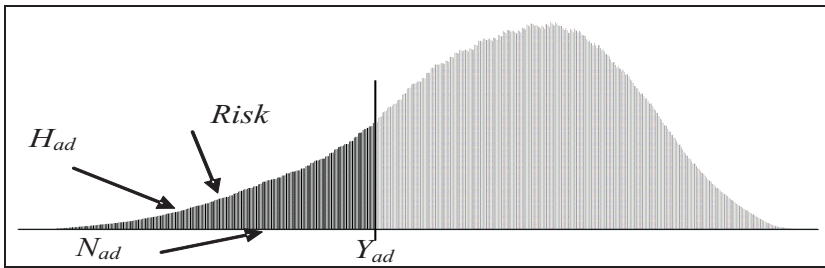


Fig. 5. Discrete distribution of the service parameter

Thus, for the service parameter at the given Risk we can compute the following: the admitted value Y_{ad} , the number of the values of the parameter in the “tail” of the distribution N_{ad} , the entropy of the probabilities of the parameter in “tail” of the distribution H_{ad} .

In numerous publications in the field of VaR (Value-at-Risk) theory, the authors investigated tails of distribution. For these purpose various distributions and conditional probabilities are suggested, which have no rigorous justification. In the bribe LP-theory it is not to be done because we use any distribution laws given by a discrete line.

Example 3. $N=700$ clients have been served. The parameter Y_1 determines the duration of the service by days and has $N_1=30$ days-grades. The probabilities P_{1r} are calculated, $r=1,2,\dots,30$ by (28). The admitted parameter value is $Y_{1ad}=10$ and the risk value is $Risk_1=0,2$. The suspicion of the bribe is caused if $Y_1 < Y_{1ad}$.

Let there be one more the service parameter Y_2 having $N_2=20$ grades, the admitted parameter value Y_{2ad} and the risk $Risk_2$. The logical variables correspond to the service parameters. The logical variables can be dependent, but is not initially, for they are contained in the certain logic formula which determines the dependence between them.

For the case of two service parameters Y_1 and Y_2 , we have $N=N_1*N_2=30*20=600$ combinations of service. The L-functions for two different service combinations Y_1Y_2 are orthogonal (the product of the logic functions of different combinations is equal to zero) as these combinations contain different grades for Y_1 and Y_2 , belonging to GIE.

The property of orthogonality of different service combinations allows us to pass from the L-functions to the algebraic expressions for probabilities, that is the L-variables are to be replaced by the probabilities and the signs “or” are to be replaced by “plus”. It is easy to calculate the number of combinations satisfying the bribe condition

(31)

$$P\{(Y_1 \leq Y_{1ad}) \vee (Y_2 \leq Y_{2ad})\},$$

and calculate the bribe probability for this condition.

Conclusion

Problems of identifying the bribe LP-models, the estimation and the analysis of bribe probabilities on the basis of the risk LP-theory with groups of incompatible events, as follows from expression (19, 26), have an extremely high computing complexity and can be solved only by means of modern computers and special Software. A complex of Software for the solution of all those problems of training, modeling and of the analysis of bribes has been elaborated. You may get the detailed information on these Software in (Solozhentsev E., 2006, p. 560; Solojntsev E., 2004, p. 391; Solojntsev E., 1999, p. 120; Karassev, V., Solojntsev V., 1999, p. 120), on www.inorisklab.com, www.ipme.ru/ipme/labs/iisad/sapr.htm, E_mail: risk@sapr.ipme.ru.

The bribe LP-models and the corresponding Software are intended for the department “Economic crimes” of the town with the purpose of revealing bribes according to the statistical data.

Basic results of the present work are the following:

1. It is offered to use the risk LP-theory with groups of incompatible events for the development of the bribe LP-models with the purpose of revealing, estimating and analyzing their probabilities on the evidence of the statistical data.
2. The construction of the LB- model comprises the following:
 - < The presentation of the L-model of the bribe in PDNF in order to estimate the number of various possible combinations of bribes and the computing complexity of algorithms;
 - < If the computing complexity is great, it should record the bribe L-model in DNF, using the scenario of the bribes in the form of remarks, or with help of the graph, or in the form of the shortest ways; or for the limited set of bribes.
 - < The transformation of the L-model of a bribe from DNF into ODNF;
 - < Recording the B-model of the bribe according to ODNF;
 - < Identifying the B-model of the bribe according to the statistical data taking into account of GIE;
 - < Analysis of the B-model of the bribe with the calculation of the contribution of the signs and grades into the possibility of a bribe, the average probability of bribes and the exactness of the LB-model.
3. Scenarios and the LP-models are described for bribes:
 - < at the institutions according to the results of their functioning,
 - < of the officials on the basis of the descriptions of their behavior,
 - < at the institutions and of the officials on the basis of the analysis of service parameters.
4. Examples are given of the estimation and analysis of the probabilities of bribes on the basis of identifying the bribe LP-model on the statistical data.
5. The developed LP-models of bribes can be used both individually and all together.
6. Software has been developed for training the risk LP-model, and for the estimation and analysis of the probabilities of bribes. It is intended for the department “Economic crimes” of towns with the purpose of revealing bribes on statistical data.

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Mass Media Effects and News Items

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Abstract

Mass media has very powerful tools to create public opinion. In every day life, we are influenced by media in different ways. Media coverage helps to define the things we think about and worry about. The Mass media influence us, but scholars are divided about how much. People choose what they read and what they listen to or watch and they generally filter the information and images to conform to their notions and personal values. The Media tries to fit into the lives of their audience. The Media contribute both to social stability and to change.

მასმედიის გავლენა საზოგადოებაზე და ახალი ამბების როლი

ნათია კალაძე
საქართველოს უნივერსიტეტი

მას მედია ერთ-ერთი ყველაზე ძლიერი იარაღია საზოგადოებრივი აზრის ჩამოყალიბებაში. დღის განმავლობაში ადამიანი მრავალმხრივ ექცევა მედიის გავლენის ქვეშ. გაშუქებულ თემატიკაზე დაყრდნობით განისაზღვრება რა აინტერესებს მსმენელს და რა აწუხებს. მეცნიერები აანალიზებენ რა სიხშირითაა მედია კითხვადი, თუ სმენადი. მოლებული შედეგების გაფილტვრის შედეგად ხდება ცნებებისა და ღირებულებების შედარება. მედია ცდილობს მოერგოს თავის აუდიტორიას. ორივე შემთხვევაში, იქნება ეს ინფორმაციის მიღების არხი თუ აუდიტორია, მედია არის სტაბილურობისა და ცვლილებების განმაპირობებელი.

During the last century, mass communication scholars thought that the mass media were so powerful that ideas could be inserted as if by hypodermic needle into the body politics. In 1940s scholars began to doubt whether media really were so powerful and they produced research questions about the media effects and made assumptions that media effects were most modest. Nowadays, worldwide most media scholars believe the effects of the mass media generally are cumulative over time. “In the media exist few types of effects, such as the powerful effects theory (that media have immediate, direct influence), the minimalist effects theory (that media effects are mostly indirect), the cumulative effects theory (that media influence is gradual over time), and the third-person effect (that one person overestimates the effect of media messages on other people)” (J. Vivian, 2007, p.365).

Firstly, mass communicators thought that mass media had a direct effect on people and they called it the powerful effect theory. In 1922, social commentator Walter Lippmann wrote his book *Public Opinion*, in which he argues that “people see the world not as it really is, but as “pictures in their heads.” He said, the “pictures” of things we have not experienced personally are shaped by the mass media. Lippmann’s description of the media became a precursor of the powerful effects theory that evolved among scholars over the next few years. Later Harold Lasswell, Yale psychologist, embodied the effect theory in his famous model of mass communication: “Who, Says what, which channel. To who. With what effect”. From experience, we are able to assume that the media could inject information, ideas and even propaganda into the public, what generally calls the power effect theory.

Paul Lazarsfeld of Columbia University was the first researcher who tested media effects on an election. “His researchers went back to 600 people several times to discover how they developed their campaign opinions. Rather than citing particular newspapers, magazines or radio/TV stations, as had been expected, these people generally mentioned friends and acquaintances” (K. McAdamas, 2007, p. 183-184). The media had hardly a direct effect. Clearly, the hypodermic needle model was off base and the powerful effects theory needed rethinking. From that rethinking emerged the minimalist effects theory.

In recent years German scholar Elisabeth Noelle-Neumann has parted from the minimalist and resurrected the powerful effects theory, although with a twist that avoids the simplistic hypodermic needle model. She concedes that “the media do not have powerful

immediate effects but argues that effects over time are profound” (J.Vivian, 2007, p. 365). Her cumulative effects theory notes that “nobody can escape either the media, which is ubiquitous, or the media's messages, which are driven home with redundancy” (J.Vivian, 2007, p. 366). To support her point, Noelle-Neumann cites multimedia advertising campaigns that hammer away with the same message repeatedly. There is no missing point. Even in news reports there is a redundancy, with the media all focusing on the same events.

However, there exists a remnant of now-discredited perceptions that the media have powerful and immediate influence that is called third-person effect. In short, the theory holds that people overestimate the impact of media messages on other people. The most significant fact is that people read, hear and see the same things differently.

“Mass communication is the process that mass communicators use to send their messages to mass audiences” (C.Howard and W.K.Mathews, 2006, p.40). And they do this only through mass media. Let us think of these as the five MS: mass communicators, mass messages, mass media, mass communication, and mass audience. The heart of mass communication is the people who produce the messages that are carried in the mass media. Mass communicators are different from other communicators because they can't see their audience.

A news item is a mass message. The message is the most apparent part of our relationship to the mass media. It is for messages that we pay attention to the media. We do not watch newscast, for example, to marvel at the technology. We listen to hear the news. It is the mass media which are the vehicles that carry messages. And the process through which messages reach the audience via the mass media is mass communication. “This is mysterious process about which we know far less than we should” (R.J.Cappon, 2000, p.15). Researchers and scholars have unraveled some of the mystery, but most of how it works remains a matter of wonder. For example, why do people pay more attention to some messages than to others? How does one advertisement generate more sales than another? Is behavior, including violent behavior, triggered through the mass communication process? There is reason to believe that mass communication affects voting behavior, but how does this work? Which is most correct to say that people can be controlled by mass communication? Or manipulated? Or merely influenced? Nobody has the answer.

“The size and diversity of mass audiences add complexity to mass communication. Only indirectly do mass communicators learn whether their messages have been received. Mass audiences are fickle” (J.Vivian, 2007, p. 326). What attracts great attention one day may not the next. The challenge of trying to communicate to a mass audience is even more complex because people are running in and out all the time, and when they are tuned in, it is with varying degrees of attention.

Communication models illustrate different aspects of the process. But the process itself is so complex that no single model can adequately cover it. Two Bell telephone engineers Claude Shannon and Warren Weaver laid out a basic communication model in 1948. “The Shannon-Weaver model identifies five fundamental steps in the communication process: 1) The human stimulation that results in a thought; 2) The encoding of the thought into a message; 3) The transmission of the message; 4) The decoding of the message by the recipient into a thought; 5) The internalization of the message by the recipient. So the basic communication model -shows sender, encoding, transmission, decoding and receiver”(K. McAdams, 2007, p. 120).

Shannon - Weaver reduced communication to fundamental elements in their model. Communication, they said, begins in the human mind. “Messages are then encoded into language or gesture and transmitted. A recipient sees or hears the message and decodes from the language or other form in which it was transmitted and internalize (making sense of a decoded message) it” (J.Vivian,2007, p.349). Those fundamental elements are also present in mass communication except that there is a double encoding and double decoding. In mass communication not only does the communicator encode the message into language and another form to be communicated but also the message then is encoded technologically for transmission through a mass medium. In radio, for example “the words are encoded into electronic impulses. At the decoding site a piece of machinery - a radio receiver - decodes the impulses into words, which then are decoded again by the human recipient to internalize them” (J.Vivian,2007, p.354). With print media two steps in decoding are not as obvious because they are so integrated. One is reading the words. The other is converting those representations into concepts.

If we will think globally, mass media are pervasive in our everyday lives. Millions of people wake up to clock radios and political candidates spend their campaign mostly on television advertisement to attain voters. “The worldwide consumer’s economy depends

on advertising for creating mass markets. For example in the United States kids see 30,000 to 40,000 (according to data to 2006) commercial message a year. Because the mass media is very influential, people need to know much about the media work” (Kleppner, 2007, p.145). From the mass media people learn almost everything. What would we know about Rose Revolution in Georgia or/and Orange Revolution in Ukraine, if were not newspaper, television or other mass media coverage?

We need to consider: well-informed and involved citizenship is possible in modern democracy only when mass media is able to work well. Mass media help people to express their view points widely; Influential forces use mass media to power people with their ideologies. The mass media are the main tool of propagandists, advertisers and others.

One of the main importance of mass media, that to be considered by each nations is culture and values. “Historically, mass media treatment of socially divisive issues has helped to create new consensus” (J.Vivian,2007, p.11). Nowadays, this culturally binding media role may be fading. Because the “exponential growth in media channels in recent years has created separate nests where like-minded people find enduring support for their perspectives and prejudices, which solidifies diversity at the expenses of consensus. If we back to binding media, we will see that it has a great influence, because mass media binds communities together by giving messages that later become a shared experience” (J.Vivian,2007, p.237). Stories on misdeeds, which are very commonly covered by Georgian media help us figure out what we as a society regard as acceptable and as inexcusable. At many levels the mass media are essential for the ongoing process of society identifying its values.

The importance of the mass media in binding people into nationhood is clear, the best sample was the Rose Revolution in Georgia, November, 2004. Around the world leaders try to take over the national media system right away as an essential vehicle to unify the population.

You might ask whether the media, in covering controversies are divisive. The answer is *no*. But in developing countries, like Georgia, where professional standards are not considered as one of the most important part of communication/journalism, so of course it is divisive. In western countries the media create controversy seldom, they just cover it. Full coverage, over time, helps to bring societal consensus - sometimes for change, sometimes not. For example, most

representative of Georgian opposition parties and population opposed reform in education system (or/and any other reforms proposed by Georgian government), but today, after exhaustive media attention, a majority consensus has emerged that reforms are very important. The same is true of many fundamental issues, such as human rights, integration process and government budget priorities. It should be taken into consideration, that despite culture and values, one of the most significant is personal values of journalists during covering the news. They make important decisions on which events, phenomena and issues are reported and which are not. The personal values journalists bring to their work and that therefore determine which stories are told, and also how they are told, it is generally coincide with mainstream of Georgian values.

What are concepts of news? It is impossible to define the concepts of news in the Georgian Model, because through years there was existed a Russian Model or a Communist Model, which is not actual for the whole world. I prefer to consider the U.S and European Models, because later or soon Georgia will accept one of them.

U.S. Model - "From colonial times to the mid - 1800s, more than 150 years, partisanship largely marked the content of American newspapers. So dominant was opinionated content that U.S. media historians characterize the era before Benjamin Sun introduced his one-cent New York Sun in 1833 as the partisan press period. (After the Revolution, newspapers divided along partisan lines. What is called the Federalist period in U.S. history is also referred to as the partisan period among newspaper historians). Two phenomena in the mid-1800s, both rooted in the economics of the newspaper industry, introduced the notion of value-free news - or objectivity" (J.Vivian,2007, p.237).

Worldwide mass media audience needs truth and nothing more or less. They want journalists to be the third side, to be a watchdog. Journalists are obliged to give a truthful description of reality through detailed and comprehensive information. A readership want the journalists not be involved in activities threatening his/her independence of judgment which would limit his/her objectivity in publishing true facts and undermine journalistic dignity. By Merriam Webster Dictionary for "Journalistic Objectivity" - "Expressing or dealing with facts or conditions as perceived without distortion feelings, prejudices or interpretation." According to a dictionary word combination it's said, that it is impossible for journalists to be completely objective because they are humans and humans are subjective

by nature. It is impossible, however, for journalists to strive to be objective. To mention an anecdote there was a journalist who used to say “I am objective,” he was asked who he was. “Everybody but the journalist” - was the answer. Objectivity in journalism is assumed synonymous with a bias-free story. In reality it means that the story is fair and balanced-featuring the main view and a bit of dissenting view.

European Model - “The notion that news could be conveyed neutrally, devoid of perspective or values, was peculiarly American. In Europe newspapers traditionally have flaunted their partisanship to attract like-minded readers. The result is flavorful, interesting reporting that flows from a point of view - and, say its defenders, is more truthful than the U.S. model. Leonard Doyle, foreign editor at the *Independent* in London, claims the “European model encourages journalists to tell about events as they see them, rather than through the eyes of government or officialdom, which can have its own agenda” (J.Vivian,2007, p.227). The U.S. model, by contrast, tends merely to chronicle claims as provided by supposedly credible albeit partisan sources. There is too little attention in the U.S. model, say critics, to sorting through the claims with journalistic analysis”.

In a forum sponsored by *Columbia Journalism Review*, Doyle offered striking examples of failures of the U.S. model. One was during the 2002 Afghan war. CNN quoted Pentagon authorities who said that “B-52 bombers had dropped dozens of precision-targeted bombs in the Tora Bora area in an attempt to flush out terrorist mastermind Osama Bin Laden. That, in itself was accurate, but CNN missed what the Pentagon had not released: that the bombs had killed 115 people in the village of Kama Ado. The British press, less inclined to merely echo official views, told about the Kama Ado carnage -the whole story” (R. J. Cappon, 2000, p.101).

Doyle says that “U.S. journalists' quest for “objectivity” has led to the tying of every fact to a source that can be named”. This is a kind of timidity that Doyle says leaves journalists vulnerable to being duped: “The loudest demands for objectivity are made by groups or lobbies who want to ensure that they get equal time” (R.J.Cappon, 2000, p. 105). The loudest and most persistent groups make the news. The U.S. approach, as Doyle sees it, is largely clerical and lacking the probing that would serve the audience better by coming closer to truth.

Even with the values-free excuse under which most Georgian mass media functions, values can't be wished out of existence. The fact is that communicators make choices. The famous NBC newscast-

er Chet Huntley, after years of trying to come up with a definition of news, threw up his hands and declared: “News is what I decide is news” (J.Vivian,2007, p.251).

In other respects, the mass media is a stabilizing influence. The media try to fit into the lives of their audiences. The media not only react to audience lifestyles but also contribute to the patterns by which people live. The media have effects on individuals and on society, but it is a two-way dimension. In democratic countries, society is a shaper of media content, but people make the ultimate decisions what to read, listen and watch. The influence issue is a very complex one that needs further research and thought.

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Covering Religion-Related News and Conflicts in the Caucasus: A Case Study of a Western “Christian Initiative” News Service

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Abstract

This study examines how a Christian-oriented Western press organization covers religion-related news in the Caucasus. Coverage in 2005 overwhelmingly focused on Christianity. Although governmental sources are more likely to be cited than religiously affiliated sources, comments of religiously affiliated sources receive more prominence. The analysis also examined unnamed news sources and use of key words related to terrorism and violence.

რელიგიური დატვირთვის ახალი ამბების გაშუქების გზები და კონფლიქტები კავკასიაში

ერიკ ფრიდმანი, უანგ-კუო ჩანგი, რიჩარდ შაფერი

ნაშრომი შეისწავლის თუ როგორ აშუქებს დასავლური პრეს-ორგანიზაცია რელიგიური დატვირთვის სიახლეებს კავკასიაში. 2005 წელს საინფორმაციო მოცვა ფოკუსირებული იყო ქრისტიანობაზე. მიუხედავად იმისა, რომ სამთავრობო სექტორის წარმომადგენლების ინფორმაციის წყაროდ გამოყენება უფრო ხშირად ხდება, ვიდრე საეკლესიო წარმომადგენლებისა, მათი კომენტარები დიდ მნიშვნელობას იძენს. ნაშრომი ამასთანავე შეისწავლის დაუსახელებელი წყაროების, ტერორიზმისა და ძალადობის შემთხვევაში გამოსაყენებელ საკვანძო სიტყვათა საკითხს.

Covering Religion-Related News and Conflicts in the Caucasus: A Case Study of a Western “Christian Initiative” News Service

Atheism was official policy throughout the Soviet Union until 1991. During the Soviet era, however, the range of governmental activity against religious practitioners and organized religious sects varied tremendously within the constituent republics. After the official atheism, practitioners of different religions encountered different degrees of religious freedom from newly independent country to newly independent country.

The Web-based news service Forum 18 concentrates on religion-related news and conflicts in the Caucasus and elsewhere in the former Soviet Union, primarily for foreign audiences. Although it is a self-described “Christian initiative,” coverage extends to Islam and other non-Christian religions. Foreign governments and international religious rights advocacy groups closely follow its stories.

This study uses content analysis of all stories posted in 2005 about the three countries to look at which religions appeared most often, how governmental and religiously affiliated news sources—named and anonymous—are quoted, and how frequently stories include key words related to terrorism and violence.

While religion and religion-based conflicts in the post-Soviet Caucasus have drawn considerable research attention, scholars have almost completely ignored how the press in and outside the region report on religion-related news. On a broader level not specifically about the Caucasus, research about press coverage of human rights generally has not separated religion freedom from other human rights topics. This article attempts to fill part of that gap through a case study of how one Web-based news service covers religion-related events in a region where domestic media often are constrained from providing such coverage. The credibility of Forum 18, like that of other news organs, is a determinant of how much foreign audiences can rely on its reporting as fair, balanced, and accurate.

The Religious Setting in the Southern Caucasus

Religion, politics, and public policy are interwoven in Armenia, Georgia, and Azerbaijan, albeit in different ways than before and during the Soviet era. All three regimes tightly control

religion and domestic and foreign media, and deeply rooted religious conflicts persist. The Center for Religious Freedom, a division of the U.S.-based NGO Freedom House, ranked them “partly free” in religious freedom for the study year—with Armenia and Georgia ranked higher than Azerbaijan. In all three countries, people who convert from the majority religion often face social prejudice, and proselytizers for minority religions frequently encounter hostility (U.S. State Department, 2005).

An examination of the interrelationships among religion, politics, and public policy in the region shows evidence of greater diversity in religious belief and practice than may be anticipated. Also, the examination indicates that government methods and policies for controlling religion are primarily modifications of those exercised by the Soviet Union.

The dominant Orthodox churches of Armenia and Georgia remain pillars of nationalism, maintaining deep cultural and political attachments for their adherents; thus in some ways, relations between religion and government are less problematic than in Azerbaijan. Official Christian church authorities are clearly identifiable and can be manipulated and controlled by government; they in turn can influence government and avoid aspects of authoritarian control. There is said to be a merger of nationality and religion, or what Johnston (1993: 238) terms a “religio-nationalist subculture” or “network of highly trustworthy but usually covert social relations that stand in opposition to public life and official values of the state.” Such a subculture is particularly evident in Armenia and Georgia, where the national churches have historically carried and conveyed national culture.

In contrast, Azerbaijan has not had the same experience. Azerbaijani Muslims lack a parallel central authority and identifiable national religious leadership. There is also more diversity in culture, language, and ethnic traditions among its Muslim ethnic groups. Thus the government generally has perceived Muslim communities as a greater threat to stability due to fears of outside agitation and imported Islamic fundamentalism, which might lead to jihad-like insurgency.

The Soviets were effective at perceiving such threats to their own power and stability and at placating Muslims by creating republics that served their nationalistic aspirations, as Johnston explains. They were adept at reducing internal religious tensions,

particularly in the Caucasus and Central Asia where clashes between Muslims and Orthodox Christians historically had occurred. This is not to say that Soviet methods of religious repression were humane or non-violent, but the most brutal methods of repression, primarily during the Russian Revolution and civil war of the early 1920s, were tempered with policies to empower minorities as Soviet citizens of a socialist state. They astutely recognized and mitigated threats from Islamic-inspired nationalism. For example, they created autonomous and semi-autonomous political units based on religion and ethnicity, and to a high degree overlooked religious practices and ceremonies centered in homes or small communities. Although authorities closed thousands of mosques, the U.S.S.R was usually able to reduce religious tensions and placate and co-opt Muslim religious leaders.

Certainly centuries-old animosities between Muslims and Christians in the region have contributed to destabilization, while hindering political, economic, and other aspects of development. Religion has also served as a building block for nationalism, particularly in Armenia and Georgia where the two forces are virtually merged. Nationalism, in turn, contributes to regional conflicts and territorial disputes when national interests collide.

International consumers of news and information are used to reading about religious clashes and are quick to accept simplistic attribution to Muslim-Christian or Muslim-Jewish animosities as a primary reason for violence and warfare. Thus the dominance of religion as an explanation for conflict in the Caucasus might be attributed to journalists' propensity to select explanations that require the least research, analysis, and explication.

For centuries the region has been a stage for conflicts, intrigues, and maneuvering among former regional superpowers Turkey, Russia, and Iran. Religion is only one of many factors these empires manipulated to cause strife, including economic, geo-strategic, and military advantages, expansionism, and colonial consolidation.

Residents of two of the countries are predominantly Christian; the third is overwhelmingly Muslim (Table 1). The rest of this section presents an overview of the historical role of religion and the state of religious freedom in the region during the study period.

Table 1:
*Religious breakdown of the population of the three Caucasus republics**

Country	Muslim	Orthodox**	Armenian Apostolic	Other
Armenia	0%	0%	94%	6%
Azerbaijan	93.4%	4.8%	0%	2.3%
Georgia	11%	75%	8%	6%

* There is no religious breakdown for Nagorno-Karabakh, which Forum 18 categories as separate from Armenia and Azerbaijan, but the majority of residents are Armenian Apostolic.

** Russian, Georgian, and Armenian Orthodox combined

Source: Freedom House (2005)

Armenia

Perhaps because of homogeneity regarding religious beliefs and practices, Armenia's laws are comparatively liberal, with Article 23 of the constitution guaranteeing freedom of thought, conscience, and religion. Since 94 percent of the population identifies with the Armenia Apostolic Church, internal religious conflict is minimal.

The Christianization of Armenia is said to have determined the course of that nation's history. The Armenian alphabet was created in 406 specifically to serve the spiritual needs of Armenian Christians. Battles, such as that at Avarair in the 5th century against Persian attempts to re-impose Zoroastrianism occurred throughout Armenian history. Such conflicts reinforced the church and sense of nationalism, but must be viewed as more than simply religious-based conflicts. Certainly with regard to Persia, Armenian uprisings and insurgency represented resistance to imperialism (Tchilingirian, 1996). Armenians were also subject to successive Arab, Mongol, Egyptian, and Turkish conquerors, reinforcing the national character of the church when Armenian government was non-existent.

During World War I, Armenians suffered from massacres at the hands of the Turks (Sutherland et al., 1988). Although that genocide is often interpreted as based on Muslim (Turkish) and Christian (Armenian) historical hostility, Turkey in 1915 was fighting Russia and the Western allies. The Russians actively recruited Armenian battalions from within Russia; these battalions, in turn, recruited ethnic Armenian (Christian) troops from within Turkey. Because of fear of Turkey and as a result of massacres, the Armenian church generally supported Russia in response to pressures from Islamic forces. Later, Armenian Christians were not subjected to the degree of repression that other religions experienced in the Soviet Union.

The church generally remained acquiescent under Soviet rule. For instance, it stayed silent about conflict in Nagorno-Karabakh in the 1980s, and often served Soviet policy goals, or at least offered little resistance to them. The church continues to play a central role in civic and political affairs, and has had more participatory and democratic organization than the Georgian Church, or other Orthodox churches of the region (Johnston).

Registered religious groups generally reported no major legal obstacles to their activities (U.S. State Department, 2005). The government does not enforce its prohibition on foreign funding for foreign-based churches and imposes no travel restrictions on religious groups. However, a 1991 law bans proselytizing, and Jehovah's Witnesses, who are conscientious objectors, reported hazing while doing alternative military service.

Azerbaijan

Azerbaijan is over 90 percent Moslem. Arab invaders transplanted Islam in the 7th century; the first shah of the Safavid Dynasty established Shia Islam as the state religion in the 16th century. Both Turkic Sunni and Iranian Shia forces influenced the Safavid court, so Azerbaijan adopted a dual character with regard to Islamic beliefs and practices; most Azerbaijani Muslims are nominally Shia.

There appears to have been a significant expansion in religious belief and practice connected to its political and ideological transformation following independence. Gusyn-zadeh (2004) suggests that an Islamic religious renaissance is taking place. While observance seems to be growing, there is also a revival and expansion in other traditional religions. Gusyn-zadeh attributes this

trend to a natural resurgence after seven decades of anti-religion policies, but says that the government has continued to repress religions it deems threatening.

Article 18a of the constitution declares separation of religion from the state and provides that all religions are equal before the law. It prohibits spreading certain types of religious “propaganda” and contradicting the principles of humanism. It states that religious rituals should not violate public order and contradict public morals.

Human rights observers report that the government engages in harassment of religious minorities from fear of social changes it cannot control, and engages in repression, primarily through pressuring for registration of religious organizations in violation of the country’s commitments as a member of the Council of Europe and the Organization of Security and Cooperation in Europe (OSCE). Since Azerbaijan recognizes thirty national and ethnic groups, it is in many cases simplistic and inaccurate to attribute internal divisions and conflicts solely to religious strife.

Both Islamic and Christian communities have been subject to police raids, beatings, denial of registration, and other harassment. Muslims are the victims of the highest degree of state intrusion; all Muslim communities are required to be part of the state-sanctioned Caucasian Muslim Board. It is apparent, according to Forum 18 editor Felix Corley, that the government fears Muslim opposition and credits Muslims with the greatest potential to mobilize organized resistance.

The Azerbaijani government is fundamentally hostile to the idea of religious freedom, seeking to control faiths it regards as a potential challenge (especially Islam), to co-opt faiths it sees as useful (Judaism, Russian Orthodoxy, Lutheranism, and Catholicism) and to restrict as far as it can other faiths with a small following and who function unobtrusively, such as Molokans (an early Protestant group). Georgian Orthodox and Baha’is, tend to escape government attention (Corley, 2003).

A U.S. State Department International Religious Freedom Report said the regime limited religious freedoms such as delaying or denying registration to some Protestant groups, harassed and occasionally raided meetings of religious minorities, and impeded importation of religious literature. Non-traditional sects such as the Baha’i faced particular difficulties in remote areas, and author-

ities restricted what they asserted were political and terrorist activities by clerics operating independently of the recognized Muslim community. The report commended the government for actively promoting interfaith understanding, however.

The fear of Muslim insurgency is similar to fears and repression of Islam in other ex-Soviet republics such as Uzbekistan. The government, which prides itself as secular, obviously worries about an Islamic-inspired revolution. It maintains tight control over religions, although some experts predict that the rise of more assertive Islam is inevitable in light of poor socio-economic conditions and disappointment in Western policies that are seen as damaging national interests. Azerbaijanis also object to U.S. aid to the separatist Karabakh regime and to the failure of the international community to force Armenia to relinquish occupied territory (Ismailzade, 2005).

Georgia

Georgians converted to Christianity in the 4th century, and the sense of Georgian identity, greatly influenced by the Orthodox Church, has been a powerful force against domination by outside forces. Since 1783 when independence was guaranteed in return for Russian suzerainty—other than 1801 to 1864 under Persian domination—the country has been closely aligned with Russia. Georgians have always resisted Russian controls on the church but pragmatically accepted Russian protection from potential invaders.

Under the U.S.S.R., nationalism was strongly expressed and exalted through a flowering of literature, language, cinema, art, poetry, and theater. This resulted in preservation of the symbolic place of the church through emphasis on its historical role as preserver and protector of language and culture, making the Orthodox Church rather than the corrupt Soviet-supported bureaucracy the primary agent of change (Johnston).

While reported physical attacks on religious minorities are down, members of nontraditional denominations such as Pentecostals, Jehovah's Witnesses, and Baptists claim they have been intimidated and threatened by local Orthodox priests and practitioners, with inadequate protection from police (U.S. State Department, 2005). Prosecutors failed to aggressively pursue criminal charges against Orthodox extremists who engaged in violence. The State Department cited improvements in religious freedom, including easier registration and importation of religious literature

and the imprisonment of a defrocked Orthodox priest for inciting religiously induced violence.

The Nagorno-Karabakh Conflict

The deadly struggle in Nagorno-Karabakh, where ethnic Armenians are the dominant population in an area within the borders of Azerbaijan, is the region's most prominent conflict. While religion and nationalism are the primary variables used to explain that conflict, the United States Institute of Peace (1998) asserts that geostrategy and geopolitics are far more influential factors, particularly the interests and ambitions of Turkey. Although religion is often an important aspect of ethnicity, its status is relegated to a lesser variable in the Nagorno-Karabakh conflict.

The title of Matveeva's article, "Nagorno-Karabakh: A Straightforward Territorial Conflict" (2002), sums up the supporting argument that the bloody confrontation has hinged on Armenians in Armenia supporting their ethnic kin in Karabakh. Matveeva's complex analysis of the conflict and recommendations for resolving it make almost no mention of religion as a primary factor, either as a cause or an operational solution to the stalemate.

Still, foreign governments and influential international peace and trade organizations often join news organizations in citing religion as a critical factor in terrorism, violence, and episodes of civil war in the Caucasus. As with reporting and commentary on strife in Northern Ireland, Iraq, Sudan, and the constituent republics of the former Yugoslavia, the people of the Caucasus have been typecast as intolerant, often turning to violence on religious grounds. Certainly it is easier for a "parachute journalist" covering a breaking story on an *ad hoc* basis to allude to historical Moslem-Christian animosity when violence occurs in the region. Such episodic reporting often fails to adequately explain other possible significant factors that raise tensions and contribute to violent responses, such as those related to ethnicity, economics, or nationalism.

Press Constraints in the Southern Caucasus

In post-Soviet republics, there is often a correlation between the presence or absence of religious freedom and the presence or absence of other human rights such as freedom of the press; such

regimes have used ostensible threats from Islamist fundamentalists to justify suppression of press and speech rights (Freedman and Walton, 2006). Constraints on the press, both official and through self-censorship, make it difficult—even dangerous—for domestic journalists to cover religious conflicts and other public policy controversies (Freedman, 2005a, 2006b). Thus foreign news organizations are often the only media to cover such issues, although their audiences are predominantly outside the countries covered.

As with religious freedom, the constitutions nominally guarantee a free press. Article 50 (2) of the Azerbaijan constitution states, “Freedom of mass media is guaranteed. State censorship in mass media, including press is prohibited.” Georgia’s Article 24.2 provides, “Mass media is free. Censorship is prohibited,” although Article 24.4 hedges that guarantee by saying press freedom “can be restricted by law and by the conditions necessary in a democratic society for the guarantee of state and public security, territorial integrity, prevention of crime, and the defence of rights and dignities of others to avoid the revelation of confidentially received information or guarantee the independence and impartiality of justice.” Armenia’s Article 24 states that “everyone is entitled to freedom of speech, including the freedom to seek, receive and disseminate information and ideas through any medium of information, regardless of state borders, but Article 39 provides that “the presence of the news media and representatives of the public at a judicial hearing may be prohibited by law wholly or in part, for the purpose of safeguarding public morality, the social order, national security, the safety of the parties, and the interests of justice.”

In October 2004, journalists and NGO representatives from the three countries held their first South Caucasus Media Conference, producing the Tbilisi Declaration on Libel and Freedom of Information. The declaration advocated eliminating criminal libel statutes, banning libel suits by public officials, limiting civil damages in defamation cases, adopting comprehensive freedom of information laws, and limiting what government documents may be kept secret (Representative on Freedom of the Media, 2005). Beyond governmental restraints and self-censorship, other major obstacles impede wide-scale improvement in professional journalism standards, ethics, and skills in the Caucasus. They include scarce resources for independent news organizations; low salaries for journalists and journalism faculty; lack of media

independence; low public trust in media integrity; lack of public expectations of fairness, accuracy, and balance; inadequate training; and the lingering adverse impacts of the Soviet model of journalism practice.

In addition, independent journalism along the lines of Western models is impaired by a broadly held societal view of the role of the media in comparatively new and developing countries. Instead of the independent watchdog role generally accepted in the West, ordinary citizens and governmental officials in the Caucasus and elsewhere in the former U.S.S.R. often assert that the press should serve as an agent of state-building and nationalism; its principal duty is owed to the state, not to the public. This reflects a belief among many citizens that the press should not be fully free to criticize government policies, including policies concerning religious rights.

Press constraints in all three countries have drawn international criticism, as illustrated by the following summaries based on reports for the study year, from the U.S. State Department, Committee to Protect Journalists, Freedom House, and OSCE:

Armenia

While independent media are active and allowed to express their views without restriction, all newspapers depend on economic or political patronage to some degree, and many journalists practice self-censorship. Broadcast stations encounter more economic pressure than overt political pressure, and advertising revenue influences programming. Journalists have reported harassment and intimidation, both during the study year and later. For example, the editor-in-chief of opposition daily *Zhamanak Yerevan* was jailed in July 2006 on allegations of forging documents to avoid military service, but press rights advocates contend that the arrest came in retaliation for critical coverage of the government, including the prosecutor general's office.

Azerbaijan

Although there has been a great deal of pluralism in the print media and a decline in defamation and libel suits due to intervention by domestic and international NGOs, the broadcast media generally follows a pro-government agenda, and a number of independent newspapers have lost circulation and reduced the frequen-

cy of publication. During the study period, opposition newspaper *Yeni Musavat* temporarily suspended publication after a court assessed \$160,000 in libel damages. Journalists are subjected to violence, detention, and harassment. For example, the editor of the independent news magazine *Monitor* was murdered—a crime some human rights activists say was intended as a warning to critics of the government—and police beat independent and opposition journalists covering political rallies. The government maintained tight control over the National Broadcasting Council, which regulates the broadcast industry. There were complaints that authorities blocked domestic and foreign journalists from reporting fully on the fraudulent parliamentary elections of November 2005.

Georgia

Legislation in 2004 decriminalized defamation and allowed journalists to protect the identity of sources and to use hidden microphones, but self-censorship remains common. Broadcast outlets—unlike newspapers—generally avoid criticizing the regime. A popular television news show that often attacked government policy was cancelled. Journalists reported assaults, including one by a governor who beat a journalist after a televised debate. In 2005, two executives of independent television channel 202 were charged with extortion for allegedly taking cash not to air a show that would embarrass a member of parliament; both were convicted and sentenced to prison; an anchor for that station was beaten—actions that press rights defenders were retaliation for reporting critical of the government.

Forum 18 News Service

Forum 18, an Internet news service based in Norway, is a significant foreign provider of in-depth English-language coverage of religion-related news in the Caucasus and elsewhere in the former U.S.S.R. It was “an initiative of Christians in Norway keen to promote religious freedom for all” (Corley, 2007).

Its influence extends beyond its immediate readers. For instance, some of its stories are republished or followed up by other broadcast, print, and Internet media, such as Radio Free Europe/Radio Liberty and Eurasianet, and by religion-oriented Web sites.

It calls itself a “Christian initiative which is independent of any one church or religious group.” Its board of directors consists

of Protestant, Orthodox, and Catholic Christians. According to Corley (2007), Forum 18 depends on “voluntary donations from individuals, trusts, and organizations. It has not received funds from any government. It does not charge anyone to receive its news,” including other media or organizations that republish and redistribute its articles.

The mission statement explains:

Forum 18 is committed to Jesus Christ’s command to do to others what you would have them do to you and so reports on threats and actions against the religious freedom of all people, regardless of their religious affiliation. Forum 18 believes that religious freedom is a fundamental human right, which is essential for the dignity of humanity and for true freedom. Forum 18 is committed to religious freedom for all on the basis of Article 18 of the Universal Declaration of Human Rights, which reads:

“Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his religion or belief and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in teaching, practice, worship and observance.”

This may be summarised as: The right to believe, to worship and witness(;) The right to change one’s belief or religion(;) The right to join together and express one’s belief (www.forum18.org).

Forum 18 says it aims to encourage implementation of Article 18 by concentrating on “gross and open breaches of religious freedom, especially situations where the lives of individuals or groups are threatened and where the right to gather based upon belief is threatened.” As to journalism values, it describes itself as “objective, presenting news in a deliberately calm and balanced fashion and presenting all sides of a situation. The overriding editorial objective ... is to as accurately as possible present the truth of a situation, both implicitly and explicitly.” That statement is consistent with widely accepted Western standards for professional journalism.

Thus it professes to offer the type of coverage of religion in the Caucasus that is otherwise available on only a limited basis, if at all, from domestic or other foreign news services, and in a manner comporting with Western expectations for journalism.

In perception and reality, Forum 18 is more than a news service, however. Its journalists take on advocacy roles in promoting religious freedom beyond the ramifications of the stories they write. Religious rights activists say they depend on Forum 18's reporting. For example, at a hearing of the U.S. Helsinki Commission in Washington, counsel H. Knox Thames, said:

Forum 18 is one of the most well-respected news services in the world that focuses on threats and actions against religious freedom. F-18 reporters work diligently around the world to ensure that religious freedom violations are truthfully reported as quickly possible. As a person who follows religious freedom issues throughout the OSCE region, I have found Forum 18 to be an excellent and reliable source of information. Their work makes my job much easier" (U.S. Commission on Security and Cooperation in Europe, 2005).

Reflecting that reality, Forum 18 journalists have opted to make news by giving interviews and voluntarily participating in events covered by other media. During the study period, the editor and assistant editor were featured speakers at the same U.S. Helsinki Commission hearing where Thames commended their work, and they participated in a roundtable sponsored by Radio Free Europe/Radio Liberty. Also during the study year, IRIN News interviewed the editor, Corley, who was also the primary reporter covering the Caucasus, about religious constraints in Turkmenistan.

Hypotheses and Research Question

Given the paucity of coverage of religion-related events and policies in the Caucasus by mainstream Western press organizations and other Internet news services, Forum 18 supplies a steady flow of news and analysis about such developments. This study examines the type and content of that coverage, as well as some news-writing conventions of its articles.

Professional journalists exercise editorial judgment to determine what news to cover and what resources, such as staff time and expenses, to allocate to that coverage. Editorial judgment is a craft, not a science; thus decisions about coverage and play usually weigh a variety of newsworthiness factors such as timeliness, proximity, impact and consequence, conflict or controversy, celebrity involvement or prominence, novelty, uniqueness, human interest, and competition (Brooks et al, 2005; Fedler et al., 2005).

Such decisions also factor in the interests of that news organization's own audience. By self-definition, Forum 18's readers are interested in religion-related news in former Soviet republics. Beyond that, it is logical to assume that most of readers who choose a Christian-oriented news service as a source of information hold Christian beliefs. It is logical to also assume that Forum 18 coverage of the Caucasus will devote considerable attention to Christianity, given its self-description as a "Christian initiative." In addition, news coverage in general, regardless of topic, tends to be episodic, meaning journalists principally cover events and series of events—"hot" or breaking news—rather than producing more analytical pieces about, for example, government laws and policies. Thus:

H1: The majority of Forum 18 stories will cover news directly affecting Christianity and Christian sects rather than other religions, even in stories about predominantly Muslim Azerbaijan.

H2: The majority of Forum 18 stories from the Caucasus will primarily concern individual incidents and events rather than broad governmental laws and policies.

Forum 18 self-identifies as a Christian-affiliated news service committed to furthering religious freedom, not merely reporting about religion. Such reporting and advocacy may be antithetical to the perceived self-interests of officials and regimes that are committed to restricting both information and religious freedom. Governmental officials and public employees quoted by foreign news organizations may face repercussions from their superiors and higher-level authorities. (Freedman, 2005a, 2005b). Under such circumstances, it is likely that religion practitioners and religious rights advocates will be more willing than public officials to be interviewed and quoted by a Forum 18 journalist. That leads to:

H3: The majority of Forum 18 stories about the Caucasus will not include comments, statements, or quotes from named or unnamed official governmental sources but will include comments,

statements, or quotes from named or unnamed religiously affiliated sources, such as members of the clergy.

Western journalists are taught the importance of fairness and balance in reporting on public affairs and controversies. Fairness reflects the inclusion of multiple and often conflicting viewpoints in individual stories and in ongoing coverage. Balance, in part, concerns content treatment, such as space and prominence given to each side of a controversy. The prominence of one side over another also has implications for media fairness, and placement of a quotation—how high it appears in a story—affects the prominence of the quoted sources (Fico, Freedman, and Love, 2006; Carter, Fico, and McCabe, 2002). Given the pro-religious rights orientation of Forum 18:

H4: In stories that include both religiously affiliated and official governmental sources, religiously affiliated sources will be used more prominently, meaning their first assertion will appear higher in a story than the first assertion of an official governmental source.

There has been intensive press attention to alleged or verified relationships between Islamic fundamentalism and violence and terrorism. Press accounts of the 11 September 2001 attacks in the United States, subsequent terrorist bombings in the United Kingdom, Spain, and France, and arrests and detentions of suspected terrorists who are Muslims frequently appear in the media. That type of coverage reinforces a psychological link in the minds of audiences and readers between Islam as a religion and violence as a tool of terror. Because Forum 18 reports on Islam in the Caucasus from a Western perspective:

H5: A significant proportion of Forum 18 stories about the Caucasus will include the words “terrorist,” “terrorism,” “fundamentalist,” “fundamentalism” and/or “violence.”

Finally, the use of unnamed sources, although discouraged by Western professional standards, is more commonplace in news coverage under authoritarian regimes. That is especially true for non-governmental sources interviewed about religion, individual rights, and other politically sensitive topics (Freedman and Walton, 2006). Such sources frequently ask not to be identified by name from fear of retaliation, usually at the hands of government. Given that Forum 18 stories about the Caucasus focus on the sensitive topic of religious freedom:

RQ: How do Forum 18 news stories use unidentified sources?

Method

This study content analyzed all 34 relevant articles posted in 2005 on Forum 18. Only regular news articles, including features and in-depth reports, were included; editorials and opinion columns were excluded. Two coders conducted the coding and intercoder reliability testing. Articles were randomly selected for testing, which yielded agreements ranging from 85 to 100 percent, using Scott's pi for categorical variables, Spearman's R for ordinal variables, and Pearson's R for continuous variables. The unit of analysis was an individual story.

Country was classified as Armenia, Azerbaijan, Georgia, or Nagorno-Karabakh because Forum 18 labels its coverage of Nagorno-Karabakh separately from that of the two countries that claim the disputed territory.

Primary religion was classified into religions or sects, with an additional "other" category for stories that were not primarily about a specific religion. Twelve of those are Christian, including a "generally Christian" category when no denomination or sect was identified; the remaining categories are Islam, Judaism, Buddhism, and Hare Krishna, and there is a "no primary religion" category (Table 2). A religion that received secondary or only a passing mention in a story was not coded as primary. To test H1, this categorical variable was recoded into a dichotomous variable, where 1= non-Christian and 2=Christian.

Primary story topic was determined by reading the entire article. The study operationalized it as a dichotomous variable—individual event/incident and broad policies or laws. The former refers to coverage of discrete event; the latter includes stories about legislation, governmental edicts, trends, and regulations. Event-centric coverage included stories about issues or governmental policies. This variable was used to test H2, which predicts that most stories will primarily concern individual events rather than broad laws and policies.

News sources are people to whom an article attributes information. Sources must be linked to assertions by verbs denoting speaking, such as "said" or "argued" and/or state of mind, such as "think" or "feel," or by phrases such as "according to" or "in a statement." Sources can be identified or unidentified. Identified—named—sources are those whose actual first and last names are disclosed; identified sources exclude organizations and agencies that make

assertions, such as “the police say.” Assertions can be taken from formal statements, press releases, speeches, interviews with a Forum 18 reporter, or interviews with other media organizations.

Unidentified sources are individuals who make statements with less than a full name: a pseudonym, partial name, or no name, but with a specific and individualized description, such as “an observer” or “military analyst,” or “church member.”

This study examined only news sources identified and used individually; sources expressing opinions as a collective group were excluded. For instance, while “a church member says” was coded as an unidentified source, “church members say” was not coded as an unidentified source because the authors could not determine how many people were interviewed. Also excluded were documentary sources such as a statute or report; however, the person discussing or describing a document was coded as a named or unnamed source.

Sources fit either of two categories: governmental or religiously affiliated. The former includes national and local officials such as legislators, cabinet ministers, police officials, judges, prosecutors, and mayors. Religiously affiliated sources include members of the clergy; representatives of religions or religious rights organizations; and individual adherents.

Examination of the use of official and religiously affiliated sources help test H3, which posits that comments, statements, or quotes from religiously affiliated sources are more likely to be included than those from governmental officials. To test this hypothesis, the authors created a new interval variable (use of governmental sources/use of religiously affiliated sources) from the original two dichotomous variables for the two types of sources. Thus, if the ratio for a story equaled .5, that story uses only official sources; if the ratio equaled 2, only religiously affiliated sources are cited; if the ratio equaled 1, both types of sources are used in a comparable manner—either both or neither appear.

First appearance of sources refers to the location of the first statement or comment by a source in the article. This ordinal variable was used to test H4, which addresses prominence of source use when both official and religious-affiliated sources appear. If the ratio for a story was less than 1, that story placed the first or only official source more prominently—higher—than the first religiously affiliated source; if the ratio was greater than 1, a religiously affi-

ated source was more prominent than any official source; if the ratio equalled 1, both types of sources were used in an equal manner—both types of sources first appear in the same paragraph.

Use of three groups of words—the appearance of “terrorism,” “terrorism,” “violence,” “fundamentalism” and “fundamentalist”—was determined by reading the entire article. These variables were combined into one variable to test H5, which posits that a significant proportion of stories will use those words

Because the data came from a population, researchers used descriptive rather than inferential statistics to test the hypotheses; simple frequency tests were employed.

Results

H1, which posited that the majority of stories about the Caucasus will focus on Christianity, is supported (Tables 2 and 3). Only 12 percent of stories concerned non-Christian religions; all of those dealt with Islam, such as an October 2005 article about an appeal to release the arrested imam of a Sunni Muslim mosque in Gyanja, Azerbaijan.

Table 2

Primary religion in Forum 18 stories posted in 2005

<i>Non-Christian</i>	
Religion	Number of Stories
Islam	3
Hare Krishna	0
Judaism	0
Buddhism	<u>0</u>
	3
 <i>Christian</i>	
Christianity generally	7
Baptist	5
Jehovah's Witness	15
Pentecostal	1
Armenian Apostolic	1
Protestant generally	1
Orthodox	0
Roman Catholic	0
Seventh Day Adventist	0
Methodist	0
Lutheran	0
Mormonism	<u>0</u>
	30
 <i>Other</i>	
No primary religion	<u>1</u>
	1
N=34	

Table 3
Simple frequency tests outcomes for the hypotheses

<u>Hypothesis</u>	<u>Variable</u>	<u># of Cases</u>	<u>Percent</u>
H1	Christianity	30	88.2
	Non-Christianity	4	11.8
H2	Individual event	14	41.2
	Overall policy	20	58.8
H3	Official sources used	4	11.8
	Religiously affiliated sources used	7	20.6
	Both used or unused	23	67.6
H4	Official sources being used more prominent	6	26.1
	Religiously affiliated sources being used more prominent	16	69.6
	Both used equally prominent	1	4.3
H5	Key words used	8	23.6
	Key words unused	26	76.4

H2, which asserts that the majority of stories will principally report on discrete incidents and events is not supported (Table 3). The percentage (41.2) for coverage of an individual event or incident is lower than the percentage (58.8) for articles about broader governmental laws and policies.

Also unsupported is H3, which suggests that stories are more apt to cite religiously affiliated sources than governmental sources (Table 3). The percentage (11.8) for official sources is nearly twice as high as for religiously affiliated sources (20.6). However, two-thirds of the stories cited both types of sources; for example, that occurred in a story about a Baptist in Nagorno-Karabakh who faced prison or forced labor for refusing on religious grounds to take the military oath; the sources included fellow Baptists and a Foreign Ministry official (Corley, 20 May 2005).

However, H4 is supported (Table 3) because the percentage (69.6) of stories in which religiously affiliated sources appear more prominently is greater than the percentage (26.1) of stories in which official sources receive more prominence. In only one story did both types of sources make their first appearance in the same paragraph, thus receiving equal prominence.

H5, was not supported. It predicted that such words as “terrorism,” “terrorist,” “fundamentalist,” “fundamentalism” and “violence” will appear in a significant proportion of stories. The analysis found (Table 3) that fewer than a quarter of the stories incorporated at least one key words. Only eight stories used any of those key words. Two headlines included one of those key words: “Georgia: How Should Religious Violence Legacy Be Overcome” (Corley, 27 January 2005) and “Georgia: Two Leaders of Religious Violence Finally Sentenced—but What About the Others?” (Corley, 1 February 2005); however, headlines on 14 January and 25 May, 2005, stories used the violence-related but non-key word “mobs” in reference to attacks on religious minorities.

Finally, the study found that unnamed officials and religiously related sources did appear in Forum 18 stories, as RQ1 asked. The appearance of unidentified sources was expected in light of the understandable reluctance of non-governmental sources living under authoritarian regimes to be quoted by name about controversial issues including religious rights (Freedman and Walton, 2006; Freedman 2005a, 2005b; Bickler et al., 2004). That is especially true for interviews with non-state foreign media, such as Forum 18.

Notably, only one story incorporated unnamed official and religiously related sources. Among the other ten stories with unnamed sources, only unnamed officials appeared in three stories and only unnamed religiously related sources appeared in seven stories. Also significantly, only one story cited more than one unnamed source. Forum 18’s use of unnamed sources contrasts with findings in a study of coverage of religious news by Western Internet news organizations in Central Asia. There, Freedman and Walton (2006) found that a majority of stories by Eurasianet, Institute for War and Peace Reporting, and IRIN News cited at least one unnamed source; religious practitioners and “ordinary” people accounted for almost half the unnamed sources used.

Implications and Future Research

This study explored how a single non-Caucasus news organization covers a controversial and sensitive topic—religion—involving culture, history, human rights, politics, national identity, and ethnic relationships in the three disparate countries of the Caucasus. It examined questions of editorial judgment, sourcing, and word choice by the foreign journalists reporting and editing such stories.

Whether religion and religious rights issues in the Caucasus receive press coverage outside the region and how the media communicates that news may have serious public policy ramifications. As Ovsiovitich (1993) pointed out, human rights reporting can document violations and educate the public which, in turn, may lobby and motivate legislators and policymakers to act; coverage can also help correct shortcomings of international NGOs. Even more broadly, the public relies on the media for information about international affairs, and exposure to international news may significantly shape public attitudes toward other countries (Brewer et al., 2003).

Forum 18 stories have limited direct readership in the Caucasus, partly because its stories are posted only in English, but also because the Web remains inaccessible—physically, technologically, and financially—to many residents. Understandably, authoritarian regimes regard the Internet as imperiling their control over the flow of information and as a potential tool for opponents and critics, internal and external.

Residents who do access Forum 18 are apt to be better educated, more influential, and, perhaps, leaders or potential leaders in government, business, academia, mass media, or NGOs. The fact that Forum 18 articles may be picked up and redistributed by other media or cited in those organizations' own stories and distributed in English, Russian, or national languages provides additional exposure in and beyond the region.

Thus the implications of this study principally concern: the role and importance of Forum 18 as a disseminator of religion-related news about the Caucasus to other parts of the world; its ability to report on news that is otherwise not covered by other media; the degree to which readers regard its coverage as fair, balanced, and accurate; its influence on other media; and the influence its stories may have on foreign policies and public opinions about

Caucasus regimes, civil societies, and respect for individual rights. Those implications are largely unquantifiable, although anecdotal evidence or case studies may provide insights. To help assess impact, researchers could track the frequency with which Forum 18 stories are redistributed or cited by other media; that might provide a proxy for assessing its influence on other news organizations. It would also be useful to explore how often and in what context its stories are cited by governmental and transnational organizations, such as the U.S. Helsinki Commission and OSCE, and by NGOs concerned with religious, human, and press rights; again, that would provide one indicator of its impact on foreign policies and public opinion outside the region.

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New Light on a Complex Early Modern Site on the Åland Islands

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Abstract

This article is about a maritime archaeological site in the outer archipelago of the Åland Islands, Finland. The site is very complex in nature and consists of two islands: Rödön and Gloskär. The site is part of an ongoing research project at Uleåborg University in Finland. The site has been excavated for three seasons. The 2007 excavation was the first that had participants from Georgia and Sweden. Previous research declared the site as a chapel from the Middle Ages in Scandinavia (thirteenth and fourteenth centuries). The authors discuss that in the light of the new results it is time to reassess the site and its function in society in its own time and context. Based on the results from the 2007 expedition, the authors suggest a new approach to the site and state it as a complex context for an inn that has its roots in the Middle Ages.

ახალი აღმოჩენები ალანდის კუნძულებზე

ულრიკა სოდერლინდი,
სტოკჰოლმის უნივერსიტეტი, შვედეთი.

ნიკოლოზ ცქვიტინიძე,
თბილისის ივანე ჯავახიშვილის სახელობის სახელმწიფო უნივერსიტეტი

წინამდებარე სტატია ეძღვნება, როგორც საზღვაო არქეოლოგიურ ძეგლს, რომელიც, ფინეთში, Åland-ის არქიპელაგზე მდებარეობს. ძეგლი ხასიათის მიხედვით საკმოდ რთულია და განლაგებულია ორ კუნძულზე, კერძოდ კუნძულ Rödön-ზე და კუნძულ Gloskär-ზე. ძეგლი სავარაუდოდ თარიღდება სკანდინავიის უახლესი ისტორიის ადრეული ეტაპით. ზემოთ ხსენებული ძეგლის გამოკვლევა შეადგენს Uleåborg-ის უნივერსიტეტის (ფინეთი) პროექტის ნაწილს. ძეგლზე გათხრები წარმოებს 2005 წლიდან. 2007 წელს ექსპედიცია პირველად იყო დაკომპლექტებული როგორც შვედი, ასევე ქართველი წარმომადგენლებით. წინა გამოკვლევების მიხედვით ძეგლი წარმოადგენს სკანდინავიის შუა საუკუნეების სამლოცველოს (ჩ.ვ. წ. 13-14 საუკუნეები). ახალ აღმოჩენებზე დაყრდნობით, ავტორები მსჯელობენ, რომ წინათ გაკეთებული დასკვნები უნდა შეიცვალოს და განისაზღვროს ძეგლის თავდაპირველი დანიშნულება, ახალი მასალებიდან გამომდინარე, ძეგლი არ წარმოადგენდა შუა საუკუნეების სამლოცველოს.



Fig 1. View from Rödön where the first location of the inn was.
Photographer: Alopaeus, Harry.

Introduction

Inns along the coastline of Sweden and Scandinavia are at the present a field of research lagging far behind in the interests of the overall research society, including archaeology and history. In Sweden at Stockholm University and at Södertörns University Collage, some essays have been written about inns. The essays are about what can have been served at the inns, their locations, and the research potential they contain (Kutuonen, 1993; Mattison, 1994; Sebastian, 1996; Virgin, 1998; Södertörns Högskola, 1998; Söderlind, 1999). Söderlind wrote the only book about these inns that exists today in Sweden. The book deals with the inn located at the islet Koffsan in Lake Mälaren, Järfälla parish closed to Stockholm. The focus of the book is what kinds of food and beverages served at the location during the seventeenth and eighteenth centuries. The inn on Koffsan is the only inn that has been excavated by archaeologists in Sweden on land. No underwater excavation at the site was carried out (Söderlind, 2002).

The first written records about these inns in Scandinavia can be found in Olaus Magnus' famous book *Description of the northern peoples*. Olaus Magnus tells us that the first inns in Scandinavia were placed on the ice and the stood there until the ice broke in the spring-time. They were then washed away by the spring floods, as they were built only in wood and were half-timbered buildings. The reason why the inns were located directly on the ice were that it was easier for travellers to travel over the ice than in the woods during the winter. The inns had many visitors since the horses got tired after a while. Over time, the habitants at the locations moved the inns from the ice up on land so that the business and commerce at the inns could go on over the whole year instead of just the wintertime. Olaus Magnus own references dates back to the thirteenth century and Germany. This indicates that the system with inns along the coastline in Germany was well established during the high middle ages and most likely even so around the Baltic Sea area (Olaus, 1555, östervåla, 1975, p. 58).

This article deals with the area surrounding the inn at Rödhamn, Lemland parish in the Åland Islands and its surroundings. The excavation of the area started in the year 2005 and during the excavation season in 2007 students in archaeology from Georgia State University took part.

Regional location of the site

Åland can generally speaking be divided in two parts: one in the east and one in the west, the different parts showing specific characteristic features. In the eastern part, the landscape has a very clear characteristic of the archipelago and consists of a great number of islands. The eastern part on the other hand consists of mixed combined land territories. Land and bridges connect these territories.

In the southern part of the main Åland Island, you find a clearly geographically defined parish, *Lemland*. The industrial and economic life is aimed more towards agriculture then fishing in comparison to the eastern part. Geographically *Lemland* is clearly defined in the east and the north by two bays, *Lumparen* och *Föglö*. The southwestern part of *Lemland* consists of an archipelago of considerable proportions, bordered by the Åland Sea and the largest islands *Järsö* and *Nåtö*. Along the waterways of *Lemland* oral traditions exists regarding seafarers chapels that dates back to the Middle Ages. Further more the Åland Island is located an intersection between different business interests in the Baltic area. As long as trade and commerce has occurred vessels has

past the Åland islands from the east to the west and the other way around. The people on the Åland Island have always taken part in this trade and commerce (Papp, 1977:15 f). *Gloskär* are located in the outer archipelago in *Lemland* parish.

A short history of the known inns at the site

After studying maps of the area, it is clear that an inn was in use in the first part of the seventeenth century. The profit for the owner of the inn during the eighteenth century was large since the previous owner, Per Lindholm, was taxed for approximately 130 litres and the owner of the inn in the parish (situated in Granboda) only for approximately 42 litres. During the nineteenth century, the inn consisted of a number of small islands owned by the government. They were rented out with the right to operate an inn or restaurant for seafarers and travellers. The lease was for 25 years. The main building was located at Gloskär and seven other small islands were also included in the lease. The islands had no vegetation except bushes of juniper berries. The bushes were used as food for a couple of sheep and four goats during the summertime.

After that, the Russians cleaned one of the islands and were paid in food. The previous owner of the inn got approximately 27 kg hay per year. Like the other small islands, Gloskär did not have any forest and it was possible to harvest approximately 66,5 kg of hay. The owner of the inn (Sjöberg) had planted a potato field right next to the inn. He and his comrades also fished for herring. The major income, however, came from the commerce of the inn.

It was stipulated that forage for animals, food and beverages (beer and schnapps), and beds with sheets and covers were supposed to be available for the travellers at the inn. In the year 1866, the government withdrew the permit for serving strong alcoholic beverages, but the inn was still allowed to serve food, beer and coffee. In the year 1915, the government also withdrew the permit to sell beer. The last owner of the inn, Fredrik Herman Ekholm, had approximately ten to fifteen hens, two cows, between seven and fifteen sheep, and a pig. The pasturage for the cows was located on one of the small islets that surrounded Gloskär. Ekholm's wife had to go there to milk the cows on a daily basis. According to the lease, the owner of the inn was stipulated to have (beside his own house) a warm cottage for guests, and a chamber for the nobles. In addition to these buildings there was supposed to be a well, a shed for salt, a building for salting fish, a sauna, a woodshed and another small chamber.

During the time around the First World War, at least 15 ships anchored at the roadstead in the waters outside Gloskär waiting for the right wind. During the wait, the crew and sailors on the vessels visited the inn for something to eat. Commercial activity at the inn did not stop until Ekholm's sudden and unexpected death in 1939. It is very clear that the activity and merchant ship visits to the inn on Gloskär were very lively from the beginning of the eighteenth century up until the death of the last owner in 1939 (Papp, 1977: 317 ff). The question remains: *When was the first inn established at Gloskär/Rödhamn?*

The 2007 expedition and its results

The 2007 years expedition consisted of the Finish maritime archaeologist Harry Alopaeus (who has approximately 40 years of experience), the Swedish maritime archaeologist Ulrica Söderlind (PhD at Stockholm University), and Nikoloz Tskvitinidze from Iv. Javakhishvili Tbilisi State University (major in archaeology) and Gigi Berdzenishvili (bachelor in archaeology from Iv. Javakhishvili Tbilisi State University). Rubi Jaramillo was taken part and made her practice on the field for her maritime biology education at Marina Läroverket, Danderyd (Danderyd's Maritime Center), Stockholm, Sweden. The expeditions contact at the Åland museum was the finish maritime archaeologist Marcus Lindholm. The expedition started on 18 June 2007 and ended on 6 July.

Gloskär island

The former harbour bay of the Gloskär Island are exposed to strong currents at least four times a day. The currents are due to the very large ferries that pass by 1-1.5 kilometres from the islands. The strength of the currents has been measured up to four knots, which is a lot of power. Due to the strong currents, it is difficult to work underwater at the site. The divers are caught in the currents and pulled into the shoreline. This is a big problem since the diving archaeologist lose track on where he or she is working because the visibility under water becomes close to zero and the measurement tapes that are the guidelines for the people in the water move and change location. The water level in the bay raises approximately 1-1.5 meters when the currents comes. These strong currents are also a major problem for the artefacts under water since the movements are so large. There are for example no culture levels underwater at the site due to the large movements and small artefacts such as clay pipes get lost forever. Due to the currents and the movements in the area it is necessary to dive or swim over the area several times a day in order to save the artefacts. Another example

of the strong currents effects on the sediment is this: a diver examined one area in the morning and small artefacts were taken care of. Eight hours later, another diver snorkelled over the same area and without diving or digging could see an unopened wine bottle laying on the seafloor. The bottle was intact and weighs over 1 kg.. An artefact of that size and weight does not move easily. This example shows how important it is that the harbour area continues to be excavated so the artefacts (big and small) can be taken care of since they are important pieces in the overall context of the site.

During the 2007 expedition, it was decided that a trench was to be excavated in a small foundation that was recognized from the previous year's expedition. In the previous inventory, the foundation was described as a place for salting fish. Members of the expedition made profiles of the foundation witch was accorded to the coordination system (x and y lines) and after this began excavation of one quarter of the foundation. The goal was to find the remains of the oven in the foundation.



Fig 2. Members of the expedition working on the foundation on Gloskär 2007. Photographer: Alopaeus, Harry.

The construction was by far more complex than was expected. Due to this fact, it took a lot longer to excavate the trench. After

cleaning the humus, many small stones and pieces of bricks appeared very high up in the construction. Due to that fact, it was very difficult to dig in levels. The first level consisted of four larger bricks and big stones. The level also consisted of a lot of sand and hard, burnt stones and bricks that felt apart into sand during the excavation. Among the burnt and broken pieces of bricks, one piece was found that had melted green glass on it. That indicates that the foundation has been exposed to severe heat. This was strengthening by the fact that a sooty layer appeared in the profile, which indicates a fire.



Fig 3. The foundation with the profile measurement tapes and the first drawn level on the plan sheet. Photographer: Tskvitinidze, Nikoloz.

The digging continued for another three levels and very soon the pattern of the construction emerged. It seems like the oven had a brick wall and the hearth was surrounded by big stones in a circle. The fourth level of the construction consisted of (besides the bricks and stones that followed the same pattern as the others levels) sand. After the fourth level, it was decided to close the trench since we had observed how the oven was constructed. Before closing the trench, a large piece of plastic was placed over the fourth level. This was done in order to know where the excavation was stopped. The next time the

trench is opened the plastic and the bricks and stones of the fourth level need to be removed before the excavation can continue. The foundation was restored into its original shape and form.



Fig 4. The first layer of bricks and debris. Photographer: Tskvitinidze, Nikoloz.

While the trench was excavated, other members of the expedition took measurements in order to reconstruct the former seashore line in the harbour area to make a map of the area. Such a map is very important since it will help date the bridges in the harbour as well as the foundation were the trench was excavated. In order to do that, the rock carvings of the water level in the years 1840, 1900, and 1907 made by the Russians in a big rock at the harbour site with were helpful. During the work with the measurements, a well that was still filled with water and some kind of construction for a possible house foundation were discovered. The well is most likely the well mentioned in the lease for the owner of the inn. The location of the well indicates that it was dug and constructed in the beginning of the nineteenth



Fig 5. The SW-NE profile at the foundation on Gloskär.
Photographer: Tskvitinidze, Nikoloz.

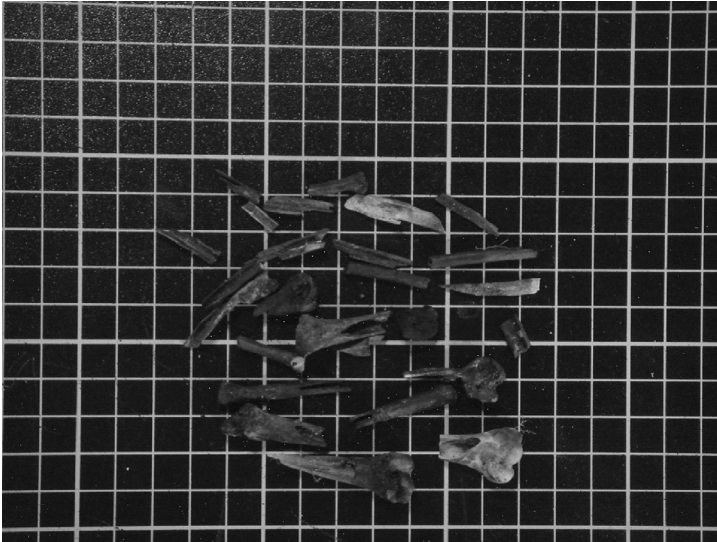


Fig 6. Burned bird bones from the SW-NE profile on Gloskär.
Photographer: Tskvitinidze, Nikoloz.

century. Even so, the well is located in an area of the island that is rich on fresh ground water and has always been that. The ground is still much waterlogged and in times of high tide and high water level the groundwater rises about 1-1.5 meters. Water is essential for an inn and its business, both for cooking and for beverages.



Fig 7. The well on Gloskär that still upon today contains fresh water.
Photographer: Alopaeus, Harry.

The Rödön Island

After the work was done on the Gloskär Island the members of the expedition moved to the close by Rödön Island. During the previous year's expedition, a visual inventory had been made of the Rödön Island and some test trenches had been done underwater. In the previous inventory from Rödön made in 1979 it is said that there was a medieval located on the north side of the island, close to the harbour. The foundation lies close to a field of stones. The foundation is described as a one-meter thick wall without plaster 11 meters long in the north-south direction and 16 meters in the east-west direction. In the southeastern corner, there is a one-meter opening in the wall. In the western direction of the foundation, the builders have used a natural rock and continued to build the wall on top of it. It is also stat-

ed in the inventory that there is an area with rock carvings on the northeast side of the island alongside the shoreline and the anchorage. It is not stated how many carvings the area contains, only that one is a compass card course, courts of amour, years, names and initials. One court of armour belongs to Olof Göstavson. He was the bailiff over Kastelholm and the Åland Islands during the years 1610-1612. Close to the area with the rock carvings, there is a mooring ring (Planeringsrådet, 1980: 57 f).



Fig 8. Expedition members working with the level machine in order to get the coordinates for the rock carvings. Photographer: Alopæus, Harry.



Fig 9. The map made in the field over the area according to the coordinates received from the level machine. Photographer: Alopaeus, Harry.



Fig 10. An overview photo of the area with the foundation and the closest rock carvings. Photographer: Alopaeus, Harry.

The rock carving area was covered with many juniper berries bushes that needed to be cut down in order to locate the carvings. This was tiring and hard work since the members was exposed to the hot sun that was reflected by both the water and the rocks. While cutting down the bushes, an presumed walking path from the anchorage to the building emerged and in total 21 carvings were found. The rock carvings are very hard to find in daylight. The best and easiest way to find and locate them is in darkness with help from a flashlight. This created some problems since it never gets dark on the Ålands Islands during the excavation period which fell in the so called “white nights”. This means that there is some kind of twilight zone between two and four a.m. when the sun rises again.



Fig 11. One of the expedition members working to fill in the rock carvings. Photographer: Alopaeus, Harry.

The rock carving area starts two meter from the foundation’s north-west corner and continues down to the mooring ring. The foundation was measured this year and the length of the north-south wall closest to the rock carvings is 8.35 meters long, the east-western wall length is 10.45 m, the north-east wall is 8.15 meters and the southwestern wall measure 9.75 meters. There is an opening in the eastern corner

of the foundation that measure approximately 80 cm. The foundation also has a collapsed wall close to the middle of it, inside. This indicates that the building use to have two rooms and not one. The measurements of the walls indicates that the building never have been rectangular as it is stated in the previous inventory.



Fig 12. An overview photo of the foundation. Photographer: Tskvitinidze, Nikoloz.

A test pit was dug in the opening in the foundation. The test pit was empty of artefacts but approximately 30 cm down there was a big stone which appears to have made a part of the staircase for the building. In the immediate nearness to the presumed staircase a large rectangular stone was found. The stone had tipped over but the shape of it indicates that its function has been as a roof stone over the staircase. If so it means that the building had an entrance hall. The presumed walking path from the anchorage leads up to this entrance in the building and while one walks the path one passes all the carvings in the rocks. The carvings are made in such a way it is readable walking along the path.



Fig 13. Photo of the last test pit with the soil that is a product of organic material compost over time. Photographer: Tskvitinidze, Nikoloz.

Very close to the foundations in its southern corner a new test pit was dug because a small foundation had been observed during the previous year visual inventory. The foundation is very small (approx 1.80 by 2.2 meters) and consist of small round stones. The pit was done close to one of the corners in the construction. The test pit measured 50 by 50 cm and had a depth of approximate 30 cm. After cleaning away the humus, dark topsoil emerged and as deeper down we came in the test pit the thicker and more compact the soil became. Several soil samples were taken and they have been turned in for analysis. However, it is very clear that the soil is a product of organic material that has been composting over a longer period.

The rock carving with the earliest year dates from 1607. However that is most likely not the oldest one in the area. The carving that has been described as a compass card course is more likely a sun clock with five crosses on it. The carvings have very little similarities to a compass card course. It is divided into the hours of the day with numbers and sections with a hole in the middle. The crosses marks the hours for eating during the catholic era when the prayer of Angus



Fig 14. The sun clock filled in with crayon in different colours.
Photographer: Alopæus, Harry.

was read in order to say grace for the food and beverage (Patrica). After the reformation in the early 1520's no sun clocks are known that have crosses on them. That gives an indication that this clock is from the medieval era on the Åland Islands. If so that also indicates that the foundation can be from the same time period. There are no signs of burials in the larger foundation.

All the known medieval chapels on the Åland Islands have one square room and all of those that have been excavated had burials. Another common feature that these chapels have in common is that all of them have a wall of stone surrounding them, dividing the sacred ground from the profane, and no rock carvings are known in the area around them. There is no stonewall surrounding the foundation on Rödön and if somebody wanted to build one that would have been an easy task since the foundation is located near to two stone fields.



Fig 15. Overview photo of the stone field on Rödön located close to the presumed inn. Photographer: Söderlind, Ulrica.



Fig 16. One of the expedition members standing besides one of the stonepiles in the stone field. Photographer: Söderlind, Ulrica.



Fig 17. The well preserved medieval chapel in Lemböte with its wall.
Photographer: Söderlind, Ulrica.



Fig 18. The restored chapel on Singridsskär in the very outer archipelago of the Åland Islands. Photographer: Söderlind, Ulrica.

Closing discussion

Previous years excavations and inventories (2005 and 2006) has given us approximately 170 artefacts (Söderlind, 2006, 2006), both from the Gloskär and Rödön Islands. The artefacts are of such character that they can be linked to the commerce at an inn more

than to the activities surrounding a chapel and church life. The artefacts represent in general pieces of bottles, plates and drinking vessels both in glass and a variety of ceramics. The domestic ceramic glazed goods are of very good and high quality. That can also be sad about the imported goods. Pieces of wine bottles from the seventeenth century have come into light. Even if it pieces and no whole bottle there is no mistake in the dating of this artefacts since the wine bottles in northern Europe produced during this time had a very unique shape. Scandinavia have never been able to produce wine so all the wine consumed had to be imported from countries in Northern Europe such as Germany and France.

Several parts of clay pipes as also been found and they are also of high quality and are datable from their design. Worth mentioning is that we have found nice specimen of the Swedish King Gustavo's III revolutionary pipe from 1772 and shell pipes that dates to the 1740s. The first pipe was only produced under a very short period and was given to the followers of the Kings revolution when he seized power on August 19, 1772. We also have plain pipes without decorations.

Many bones been classified as those from seals, sea birds, beef, goats/sheep, pigs and other cloven-hoofed animals have been found. What is interesting is that the major parts of the bones are from young animals. This is a very strong indicator that the community to which the Gloskär and the Rödön Islands belonged to in the past was a wealthy community. Only wealthy communities slaughter young animals. A poor community would have let the animals grow up and used them for breeding and to get milk in order to produce butter and cheese and so on.

The 2007 expedition yielded approximate 70 artefacts, most of them came from the harbour area and the artefacts followed the same pattern as the previous years. About 15 artefacts came from the foundation that was partly excavated. They consisted of construction parts such as different sized nails and fragments from a cauldron. Among the artefacts there were also burned bones, most likely from seabirds. The bones have been handed in for analysis. Even if the foundation only was partly excavated, it is very clear that the building had a very large oven, almost in the centre. There is very little space between that oven and the walls of the building, at most approximately one meter. That is just enough for one person to walk between the oven and the walls of the building. The oven strongly indicates that the building is not a place for salting fish. For salting fish, you need salt, spices, barrels and the fish itself. Since we have experience of salting fish at a fishery in modern times, the foundation with the large oven is completely inappropriate for salting fish. In order to clean the fish from its head and guts a larger working area is required than the one that is in the foundation. There is not enough space between the oven and the walls to place the big wooden barrels. In addition, a big oven is not necessary for salting fish. The oven indicates an activity that needs heat.

The burned artefacts and the black soot in the profile indicate that the building burned down. The location of the building indicates that it was built in the nineteenth century, which means that it was not burned down by the Russians during their ravaging of the Åland Islands in the beginning of the eighteenth century. There is a possibility that the building burned down during the First World War or it just could have burned down in an accidental fire. The location of the building in the harbour area is very good if you are working with fire on a daily basis. It is close to water in case of a fire and if the building burns down it is far away from the other houses and cottages so the fire hazard had been limited. It was better to lose one building than all of them.

For the moment we are working with two different theories what the building could have been used for: one is for smoking fish and the other is that it is a smithy. Both of these activities need fire and a large oven. However, smithies are not known to be in close connection to inns in the outer archipelago. One reason for that is that the guest came by boats and not by horses. Smithies are usually linked to inns along the roads in the inlands since the horses needed new shoes etcetera. There is a possibility that the ships and vessels needed a smithy in order to repair some iron details in the ship or vessel, but that seems a bit far-fetched. The crew and people aboard the ships and vessels where skills artisans themselves and were used to do that kind of things themselves.

The other activity of smoking fish fits better with the overall context of the site, not the least because the last owner of the inn fished herring along with other fishermen. The location of the building in the harbour fits also very well in to the context. When the fishing boats came in to the harbour with their catch it was a very short walk with the fish to the smoker. Smoking the fish was an alternative to the salted fish, which was very common on the tables in this time. The fish stayed preserved for a long period and smoked food was popular among the people in the outer archipelago. Just outside the building in the harbour, we have found sinkers for fishing nets in barque. It is difficult to say how conservative the fishermen had been when making the sinkers, but they are very similar to the sinkers found on the Swedish royal ship *Vasa* which sank in the year 1628. During the excavation sample was taken from the soil inside the oven. The soil samples have been handed in for analysis. It is going to be very interesting to see what the soil consist of. If it has traces of fat from fishes, fragments from wood and trace of the juniper bush and/or from it seeds that are strong indicators that the building was used for smoking fish, so we are awaiting the results of the analysis with great interest.

The reason for the smaller amount of artefacts this year in comparison to the previous year's excavation is that the group cleared a large area from bushes on Rödön in order to document the rock carving area that was reported in the previous inventory. It took a lot of time to clear the area and rock carvings are very hard to find in daylight. The best time to try to find

and locate them is when the sun is setting. This was one reason for the long working days. In total 21 carvings were found and documented. The carvings mark the pathway from the anchorage to the building that in previous inventory has been classified as a medieval chapel. The building and the context with the rock carvings has no similarities with what we know about the medieval chapels on the Åland Islands. It has two rooms and the walls are of different length and have an opening in the east with a staircase. No burial had been performed at the site. There is no stone wall surrounding the building in order to separate the sacred ground from the profane. Every medieval chapel on the Åland Islands has that and it would have been an easy task to build one since the building is very close to two stone fields. One can always argue that the building has had a wall made of wood from smaller trees and that the wall has disappeared over time. If so, that would be unique for the Ålands Island. However this seems far-fetched since the trees are small and tiny on the island and has always been due to its location in the outer archipelago. The trees are marked by the strong and harsh winds and have adapted to the geographical conditions of the site. If a wooden wall had been constructed, the wood must have been taken from somewhere else and transported to the island. This seems unlikely in the event that the stone fields are so close the foundation and a wall could easily have been constructed out of those stones.

Furthermore is it not known that rock carvings were ever made close to the medieval chapels; that would have been a form of sacrilege towards the church and its values. The rock carvings can be compared to modern graffiti and its very clear on Rödön that the carvings were done so it has been readable along the pathway towards the entrance of the building. The closest one to the building is only two meters from it. If the foundation were a medieval chapel with rock carvings it would make it further unique on the Åland Islands. However, rock carvings are closely linked to harbour sites and inns along the coastline of Scandinavia. The test trench which was made in the small foundation close to the bigger one consisted of dark soil from organic material. It is too soon to say what that building has been used for; it can either be a storage room for foodstuff, the garbage place for leftovers or maybe an outhouse. Up on until today it is not known that the medieval chapels have any of these buildings close to them.

We are of the opinion that it is time to reassess what the big foundation on Rödön was used for. From all the new facts that have become known during the 2007 expedition, we would like to classify the building as an inn instead of a medieval chapel. The rock carving that is a sun clock with crosses indicates that it has roots in the pre-reformation area and most likely that is the oldest carving of the area. Therefore, it is important to find out when the first inn was established and began operation on Rödhamn. One question among others is also why did the inn move from Rödön to Gloskär?

After making a visual inventory of Rödön, we believe that that reason for the move of the establishment was the lack of fresh water. We found

only two smaller accumulations of fresh water on Rödön, one contained approximately 500 litres and the other 1,500 litres of fresh water. That amount is not sufficient by far for an inn with guests that require warm food and beverages. As mentioned earlier in the text, the freshwater assemblage on Gloskär has always been larger and still is.

The future

Even if the site has been under excavation for three seasons it stands very clear that it still has a lot to offer in new knowledge in the field of inns in the outer archipelago on the Åland Islands and in Scandinavia as a whole. The results from 2007 expedition are very promising and raise new questions and thoughts about the complexity of the site and there is no doubt that the site needs further investigation and that it was very meritorious that the expedition members came from Sweden and Georgia.

The strength among the members and the dynamic of the group lay in that the Swedish members knew the site from previous year's excavations and that the Georgian members saw and encountered the site for the first time. The site and its location is very different from the sites in Georgia and that meant that the Georgian members of the group saw it in a different way than the Swedish members and had new ideas and questions to the site than the Swedish members. From that point of view interesting and fruitful discussions emerged. We can only hope that this was the first time the expedition group consisted of these members and by far not the last time.

The big foundation on Rödön that we classify as an inn instead of a mediaeval chapel needs further investigation. It would be very useful if the foundation was measured and drawn in 1:100 scale. A plan like that would be very usefully when the foundation is excavated in full. It would also be very useful to search for a building/foundation that would have been used as the kitchen. Since the research about inns still is in its infancy, we do not have any knowledge of where the kitchen was placed. From the visual inventory of the big foundation it does not seem like that the kitchen has been placed in the same building. However the building had a cellar of some kind. Taking the fire hazard into account, it is likely that the kitchen was a separate building placed a bit from the inn. If so, the kitchen should be looked for in the bushes that cover the area east of the building, close to the water.

Summary

This article has been about the complexity of a maritime archaeological site in the outer archipelago on the Åland Islands, Finland. The site is very complex in nature and consists of two islands, Rödön and Gloskär islands. The site can be dated to the early modern times in Scandinavia. The site is part of an ongoing research project at Uleåborg University in Finland.

The site has been the subject for excavations since 2005. The 2007 expedition was the first one when the members of the group came from both

Sweden and Georgia. The cooperation between the two countries became a reality due to generous funding from Ålands kulturstiftelse, Stiftelsen Hilda och Gustaf Eriksons samt Gustaf Adolf Eriksons understödsfond, Stiftelsen för åländsk historisk forskning. All of the foundations are located on the Ålands Island. The expedition is in great debt to the sponsors for making the expedition come true with members from both Sweden and Georgia. The expedition is also in debt to Marcus Lindholm's father for lending us the boat without charge.

The 2007 expedition partly excavated a foundation in the former harbour area on Gloskär and the building had a large oven more or less in the centre of it and very little space between the oven and its walls, at its best approximately one meter, just enough for one person to walk around the oven and stand in the building. The foundation has earlier been classified as a place for salting fish, but for that activity an oven is not necessary. All the finding of the 2007 expedition indicates that the building instead was used for smoking fish, which was highly appreciated on the Åland Island as food. The samples taking from inside the oven have been handed in for analysis and we await the results with great interest. The former seashore line was also measured on Gloskär. This is of great importance since a map with the former seashore line is going to help us date the remains of the bridges and other buildings and the well on the island.

On Rödön, a larger area was cleaned from juniper bushes in order to locate and document an area of rock carvings, of which 21 were found. On Rödön, there is a larger foundation that in previous inventory has been classified as a medieval chapel. However, the foundation and its surroundings have very little in common with the other known medieval chapels on the Åland Islands. No funerals had been performed at the site and the foundation has two rooms. Known medieval chapels have only one square room. All the known medieval chapels on the Åland Islands have a stone wall surrounding them in order to separate the sacred ground from the profane. The foundation on Rödön has no such wall and if someone wanted to built one it would have been an easy task since the foundation is located very close to two stone fields. No rock carving areas are known close to the medieval chapels either. On Rödön, the closest rock carving is only two meter from the foundation. We strongly believe that it is time to reassess the foundation on Rödön, all the indications from the 2007 expedition indicate that the foundation has been an inn instead of a medieval chapel. We still need to answer the question when the first inn was established in the Rödhamn area. The rock carvings on Rödön indicate that the inn cannot have been established during the catholic era.

Some point in history the inn has moved from Rödön to Gloskär. The question is why? We strongly believe that one important reason has been the small quantities of fresh water on Rödön. The assemblages on Rödön have been very small and by far not enough for the activities connected to an inn with hungry and thirsty guests. On Gloskär the freshwater assemblage have

been larger and still is today, the ground next to the well is still waterlogged. During high water, the water level rises 1-1.5 meters. Another reason for the move of the inn can be that the harbour on Gloskär always has been a natural harbour that always has been in lee of the wind in comparison to the anchorage outside Rödön. This two reasons combined can have been the reasons to move the establishment from Rödön to Gloskär. The last owner of the inn died in 1939 and after that, all the activities stopped. It stands clear that the activities on the Rödön Island and the ones on the Gloskär Island are closely linked together.

It is very important that the foundation that we classify as an inn on Rödön will be measured and drawn in a scale 1:100. A diagram like that is very useful when the foundation is totally excavated.

Even if the site has been excavated for three seasons, it stands very clear that the site has a lot more to offer to the research field that is in its infancy. The results from the 2007 expedition raise new questions that need to be answered and we can only hope that the excavations in the area are allowed to continue in the future.

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Tbilisi According to the Foreign Sources

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Abstract

In the second part of the fifth century King of Georgia Vakhtang Gorgasali reconstructed and extended Tbilisi alongside some other cities and made it the capital of the country. From that time, the significance of the city considerably increased and together with some other distinguished cities of the world, it was frequently mentioned in the works of foreign travelers and scholars visiting Georgia.

The present paper introduces the evidence of foreign sources about Tbilisi from the fourth century until the twentieth century in Greek, Armenian, Arabic, Persian, Turkish and European languages.

Attention is drawn to the location, the architecture, the population, its occupation, the conquerors of the city, and the fights against them.

One can see that regardless of the ethnic composition of Tbilisi, which changed over time - the city managed to preserve its face and peculiarities: aspiration towards freedom, tolerance, and hospitality. All visitors were delighted by the sulfur baths, the architecture, the educated people, their taste, and the beauty of the women.

Since Tbilisi preserved its position as the main city of the country for a long time, the paper also includes a brief history of Georgia presented from a special perspective.

თბილისი უცხოური წყაროების მიხედვით

გიული ალასანია
საქართველოს უნივერსიტეტი

მეხუთე საუკუნის მეორე ნახევარში ქართლის მეფემ, ვახტანგ გორგასალმა, სხვა ქალაქებთან ერთად თბილისიც გააფართოვა, გააშენა და ქართლის მთავარ ქალაქად აქცია. იმ დროიდან თბილისის მნიშვნელობა გაიზარდა და მსოფლიოს სხვა გამორჩეულ ქალაქებთან ერთად ხშირად იხსენიებოდა უცხოელ მოგზაურთა და სწავლულთა ნაშრომებში.

წინამდებარე სტატიაში წარმოდგენილია თბილისის შესახებ უცხოური წყაროების ცნობები, დაწყებული IV საუკუნიდან XX საუკუნის ჩათვლით: ლათინურ, ბერძნულ, სომხურ, არაბულ, სპარსულ, თურქულ, რუსულ და ევროპულ ენებზე.

წყაროებში გამახვილებულია ყურადღება ქალაქის მდებარეობაზე, მის განაშენიანებაზე, მოსახლეობაზე, მათ საქმიანობაზე, ქალაქის დამპყრობლებზე, მათთან ბრძოლაზე.

ირკვევა, რომ მიუხედავად ეთნიკური შემადგენლობისა, რომელიც განსხვავებული იყო სხვადასხვა დროს, ქალაქი საუკუნეების მანძილზე ინარჩუნებდა სახეს და ერთსა და იმავე ნიშნებს: თავისუფლებისათვის მებრძოლ სულს, ტოლერანტობას, სტუმართმოყვარეობას. ყველა მნახველი აღფრთოვანებულია გოგირდის აბანოებით, ქალაქის არქიტექტურით, მოსახლეობის განსწავლულობით, მათი გემოვნებით, ქალების სილამაზით.

რადგან თბილისი დიდი ხნის მანძილზე იყო ქვეყნის მთავარი ქალაქი, სტატიაში გარკვეული კუთხით წარმოდგენილია საქართველოს ისტორია.

According to archaeological excavations, Tbilisi has been populated since ancient times. However, written sources have only preserved information about the city from the fourth century A.D. It is only natural that Georgian written sources are the main source for studying the history of the city. At the same time, a lot of material has been preserved in Greek, Latin, Armenian, Arabic, Persian, European, and Turkish and Russian sources. Tbilisi was conquered several times from the ancient era onward. There were trade routes that brought merchants, travelers, investigators or missionaries giving us an opportunity to restore the picture of the Tbilisi of old times in a more or less complete way.

Roman Sources

A fourth century A.D. map drawn by a Roman geographer named Castorius is the oldest foreign source about Tbilisi. According to researchers, one of the points on the map ‘Tphilado’ refers to Tbilisi. The indication of the city on the map of Castorius can be accounted for by the location of the city on a trade road, which emphasizes the significance of Tbilisi in this respect.

Byzantine Sources

The oldest foreign narrative source about Tbilisi is the work of the historian Theophanes Byzantine who in his description of the uprising of 571 calls Tbilisi the capital of Iberia (Kaukhchishvili, 1982, pp. 283-284).

Theophanes Byzantine provides information on the arrival of the Byzantine emperor Heracles in Georgia (approx. 752-818). In this source, there is a narration about the meeting of Heracles with his Turk allies. The author remarks: “Persians ... saw all this from Tbilisi (Τιφλίς) city” (Theophanes of Byzantium, 1967, pp. 210-212).

Though Byzantine sources provide a lot of information about Georgia, there is little information about Tbilisi in them since Byzantines dealt with western Georgia. Even when Kartli was divided into two parts (because of the Byzantine-Persian treaties of 591 or 628), the part of Kartli under the Byzantine control reached Tbilisi and the rest of the territory, including Tbilisi, was under the Persian control.

The Byzantine emperor of the fourteenth and fifteenth century, Michael Panaretos, provides some significant information about Tbilisi. First, he tells about the military agreement between the Georgian King David IX and the King of Trabzon, Aleks III. At the same time, he refers to the former as “the King of Tiplisi”. Later on, he calls the city “marvelous Tiplis”, a most wealthy city. While relating Temur Leng’s attack

on Tbilisi and the confinement of the King of Georgia Bagrat V, which he dates back to November 21, 1387. According to him: “No one can calculate the wealth he got the possession of, the icons he robbed and set fire to, the gems, purls, gold and silver he took away with him” (Gamkrelidze, 1960, pp. 41,45).

Armenian Sources

From the sixth century on Tbilisi is often mentioned in Armenian sources. Namely, in the collection “Epistles Book” (fifth to thirteenth centuries); in the works of historians Anania Shirakatsi (seventh century), Sebeos (seventh century), Movses Kalankatuatsi (seventh century), Movses Daskhurantsi (tenth century), Ukhtanetsi, (tenth century), Thomas Artsruni (tenth century), Iovannes Drasxanakertsi (tenth century), Stephanos Asoghik, known as Asoghik of Taron (tenth and eleventh centuries), Pseudo Shapuh Bagratuni (eleventh century), Matheos Urhaetsi (Matthew of Edessa) (twelfth century), etc.

In the Geography of Anania Shirakatsi, Tbilisi is mentioned as “Tpkhik” (Khorenatsi, 1877, p. 40).

Movses Kalankatuatsi thinks Tbilisi is “like any other well-known big trade city”. He provides detailed information on the connection between the Byzantines and the Khazars, on the fight for Tbilisi in 627-8, and on the robbery of repressions carried out there. What is especially impressive about his narration is the information he offers about the wealth of the city and the way “numerous heavily loaded troops carried booty and placed it in ricks and heaps in front of their sovereign so frequently that it was exhausting to look the immeasurable amount of gold and the talants of silver. And who can ever thoroughly describe the church vessels decorated with pearls”. Later the author remembers the wealth taken from Tbilisi for a second time: “silver glasses and vessels for drinking decorated with gold were taken from Tbilisi when after it was destroyed” (Kalankatuats, 1985, p. 70, 81).

The seventh century author Sebeos provides information on how Byzantium and Persia shared Kartli. That was followed by the shift of control of western Kartli until Tbilisi to Byzantium (The history of historian Sebeos, 1939).

From the ninth century, Armenian sources refer to Tbilisi as “Paitakaran” (built of wood). In the Georgian translation of the Armenian hagiographic work of the ninth and tenth centuries “The Torture of Saint Priests of Armenia Ariastake, Orthanei, Osiki, Grigol and Daniel”, “Paitakaran” is explained as “which is Tbilisi” (Melikset-Beg, 1958, p. 34).

Thomas Artsruni, the tenth century Armenian author, narrates the attack of the Arab Military Leader Bugha Turk on Tbilisi in 853 in his work “The History of the Artsruni Family”. Thomas Artsruni notes that “Bugha ordered his troops to reach the city called “Tplik” that used to be called Paitakaran in old times. The author also informs us that Tbilisi was built of cedar including the fences, fortresses, chambers and all the houses, decorations, and the equipment of the citizens” (Melikset-Beg, 1958, p. 34; Artsruni, 2002, p. 59).

The tenth century Armenian author Ukhtanetsi, who saw Tbilisi himself, considered it to be “a big capital, amazingly constructed, fantastic, well-known and stupendous.” Based on his report, Tbilisi had a rich store of books that the author used (Ukhtanetsi, 1975, p. 67).

Pseudo Shapuh Bagratuni (eleventh century) relates that in the early tenth century “Smbat Bagratuni, the son of Ashot (Smbat the Confessor) Bagratuni (890-914) conquered “Paitakaran, which is Tpilisi” (Melikset-Beg, 1958, p. 35).

Matheos Urhaetsi, an Armenian author, a contemporary of the events, provides most notable information on the seizure of Tbilisi by David the Builder. He relates that “David occupied Tbilisi, which was under Persian control, and annihilated the people of the city. He ordered 500 Sarangs (military leaders) to impaled on logs and killed in a brutal way” (“Evidence of Mate Urhaetsi on David the Builder”, 1966).

Samuel Anetsi another Armenian author of the twelfth century - remembers the occupation of Tbilisi by David the Builder and considers this to be an important event (Maisuradze, 1967 p. 63).

Stephanos Orbeliani (1258-1304) remembers Tbilisi while narrating the rebellion that took place in the reign of Giorgi III and reckons that the city was safely fortified and protected. The author relates: Giorgi III “mounted on a horse, retreat instantly and entered Tpilisi, and reinforced here” after which the rebels “did not any longer go there, but waited for him to leave” (Orbeliani, 1978, p. 84, 114).

Kirakos of Gandzak, the Armenian historian of the thirteenth century, provides noteworthy information on Tbilisi at the time when it was attacked by Khwarazm-shah Djalal al-Din and the Mongols. He narrates: “(Djalal al-Din) went to Tbilisi. The Persians there supported him. He seized the city, extirpated many of the citizens, forced a big part of them to reject Christianity and accept the false and tempting faith of the Muslims”. Based on the information of the same author, neither elderly nor young people could survive the Mongols’ attack. Even David, the son of Lasha, seated by the Mongols, escaped from Tbilisi. There is also a significant note about the movement of rich Armenian traders from Kars to Tbilisi and their settlement there with their families. Some of the

Armenians were later promoted and one of them called Umeki was even called the father of the king (“The history of the Mongols based on Armenian sources with excerpts from the history of Kirakos of Gandzak”, 1974, p. 8).

Grigor Aknertsi, the thirteenth century Armenian, author relates that a rebellion was being prepared against Mongolians in 1249 in Tbilisi. However the attempt of the rebellion failed because of traitors. The uprisings of 1259-1260 failed, too (Aknertsi, 1961, p. 26, 27, 28).

Vardan Areveltsi, an Armenian historian of the thirteenth century provides information on the seizing of Tbilisi by David The Builder, the rebellion of the Orbelis during the reign of Giorgi III and the attack of Khwarazm-shah Djalal al-Din Tbilisi. Vardan Areveltsi relates: “The King of Georgians, David, the son of Giorgi - the son of Bagrat, “who seized Tbilisi from Persians, defeated Melik - the Sultan of Gandzak and put 500 disarmed men on logs in Tbilisi” (Areveltsi, 2002, p.139). Iovanes Erzinkatsi, a famous Armenian astrologist and philosopher, remembers Tbilisi in the following way in 1284” I had an opportunity to visit the kingdom protected by God, a big famous city Tbilisi called Paitakaran by historians” (Maisuradze, 1967, p. 66).

Mkhitar Airivanetsi, an Armenian author of the thirteenth century associates the founding of Tbilisi with Vakhtang Gorgasali (Airivanetsi, 1990, p. 66).

In 1411, in the speech made on the occasion of the devastation of Georgia and the death of Grigol Tateveli, the Armenian scholar and writer Matheos (Mathe) Vardapet remembers Paitakaran - a city in Georgia (Melikset-Beg, 1958, p. 35).

Thomas Metsop, a historian of the fifteenth century provides us with significant information on the attacks of Timur the Lame (1386) and the Black Shepherds’ (Kara-koyunlu) leader Djahan-shah (1440). In the first case, according to the author, “there were a lot more people who were killed than those who survived”, while in the second case, the aggressors ruined to the ground all the churches built by Georgian kings – old and new – and threw the Cross of Our Lord onto the ground” (Metsop, 1987, p. 24).

In the “History of Albania,” written in the late sixteenth century by Iovanes Tsaretsi, relates a Turkish campaign led by Mustafa Lala Pasha in 1578. He remarks that Mustapha Lala Pasha “reached Paitakaran, which is Tbilisi, erected a fortress there and fortified it” (Melikset –Beg, 1958, p. 35. n.d.).

In the beginning of the seventeenth century an anonymous Armenian writer related the campaign of Shah ‘Abbas in eastern Georgia, stating that “the King of Persia entered Kartli and seized Paitakaran city, which is the same as Tbilisi”.

Arakel of Tabriz, an Armenian author of the sixteenth and seventeenth centuries, tells us about Tbilisi in the context of the events of the beginning of the seventeenth century. He also recollects Giorgi Saakadze (Davrizhetsi, 1973, pp. 465, 466, 491).

The “Diary” of an Armenian merchant - Zakaria Aguletsi (1630-91) contains some notes of Armenian merchants in Tbilisi, the mint of Tbilisi, which belonged to the vali of Kartl-Kakheti, the same Rostom, in 1651. Zakaria Aguletsi minted coin there. In the same year there was a flood in Tbilisi (Aguletsi, 1979, p. 21).

Zakaria Kanakertsi (1627 – 1699), an Armenian historian of the same century, tells of the arrival of the Armenian Catholicos Hacob Jughaetsi to collect money for debts. The historian also presents detailed information on the Tumanishvili-Baratashvili disagreement (Kanakertsi, 1969, p. 186-194).

Esaiah Hassan Jalaliants - the Catholicos of Gandzasari (1702—28) and an Armenian historian wrote about the fight for Tbilisi in the 1720s. The author relates the attacks of Constantine II of Kakheti (Muhammad-Kuli-Khan), the seizing of Tbilisi with the help of hired Lezgian troops and Vakhtang VI’s departure from Georgia (Maisuradze, 1967, p. 59. n.d.).

The Armenian Catholicos Abraam Kretatsi (who died in 1737) visited Tbilisi. He witnessed the entrance of the Persian Nadir Shah into Tbilisi and 17 days spent by him in the city. There were 300 Armenian households on his list of “the unreliable” whom he was planning to settle in Khorasan. However these families managed to escape by paying 3,000 Tumans and 3,000 “Kharvali” of wheat (Kretatsi, 1967, p. 55).

A few Armenian authors describe the seizing of Tbilisi by Agha Muhammad Khan. In their notes they refer to the capital of East Georgia as Tbilisi, and more often as Paitakaran. For example, the story of Serob (Serabin) was written in the end of 1795. An untitled anonymous lament was finished on March 26, 1796. A history by another anonymous author was completed in January 1796 (Melekset-Beg, 1958, p. 35).

Serob Grich (1770-1836) was a witness to the event: “It was worth seeing the fight. The thunderous sound of swords hitting shields reached the mountains. The surroundings were deafened by the sound of swords, the buzz of guns never stopped, one would not be able to hear the hum of arrows flying...”. The author notes that the city was particularly rich and when Persians invaded: “They got rich with gems and pearls”. The author calls the invaders brutal: “They wiped out a part of the population, took some hostage. They tortured people of their confession even more than Christians ... The eunuch Khan of Persians left the city in six days” (Maisuradze, 1967, p. 58).

Arabic Sources

From the mid-seventh century, Georgia faced a new invader: Arabs. From the ninth century on, Arab historians provide data on Georgian-Arab relations, including information about the early period. The earliest source is a work by Abu 'Ubayd al-Kasim (770-838) which contains notes on the Kitāb al-amān ("Letter of Protection") delivered to the population of Tbilisi by Habib Ibn Maslama - an Arab colonel (Tskitishvili, 1987, p. 55). The text of the "Letter of Protection" is part of al-Baladhuri's history (about 820-892) (Balazori, 1927, pp. 12-13). The author also describes the invasion of Bugha Turk: "The troops of Bugha attacked Tbilisi. Fifty thousand men were burnt there, the survivors were enslaved, and the dead were robbed". The same author draws our attention the appearance of Tbilisi. He relates: "Mtkvari is a long river. It is not in the middle of madina. Tbilisi is on the west bank. Sughdabil is on the east bank. Tbilisi has five gates: Maydan gate, Kari gate, Minor gate, Sughdabil gate, Rabad gate". All the entrances were to Tbilisi. With one entrance the city is linked to its part, Sughdabil, with another to Rabad, "Kari gate" was on the way to Kars city. The author informs us that Bugha Turk entered Tbilisi from the east – Sughdabil (Japaridze, 1967, p 64. n.d).

Humayd Ibn Zandjuwayh (died in 865.) has provided information on the same "Letter of Protection".

Ibn Khurdadhbih (ninth century) is another Arab author to remember Tbilisi (Ibn Khardadhbih, 1986, pp. 108, 130).

Ahmad b. A'tam Al-Kufi – an Arab author of the ninth century – helps in determining that the Tsanar-Kakhetian revolt of early 770 followed by the establishment of the Tbilisi Emirate (Alasania, 2007).

Al-Ya'kubi – an Arab author of the ninth century informs us of the treachery of Tbilisi 'Amir Ibn Isma'il and the response of Bugha Turk with a campaign (Yakubi, 1927, p. 14; Menteshashvili, 1955, p. 198).

Based on the reports of al-Istakhri, the tenth century Arab geographer and traveler, Tbilisi was a constituent part of Arran and in the whole Arran "There are not any cities that are bigger than Barda (Bardha'a, formerly capital of Arran), Derbend (Darband) and Tbilisi (Tiflis)." However the same author notes that "Tiflis is smaller than Derbend and it has two walls, made of fired bricks. This is the city of abundance, a lot of fruit and plants. A lot of goods and honey are taken from Tiflis by Mtkvari (Kur). There are warm waters in Tbilisi... hot without fire" (Karaulov, 1901, pp. 11-15).

Ibn Hawkal, an Arab traveler and geographer, visited Tbilisi In the middle of the tenth century (born in 943). He confirmed the information of al-Istakhri, according to which Tbilisi is the second wealthiest city in

South Caucasus after Derbend. “It (Tbilisi) has two rocky walls made of fired brick, three gates”. It is abundant, fortified, rich in inexpensive products”. It surpasses other wealthy countries and fruitful states”. The author points out that the city is situated on River Mtkvari, mentions hot baths, floating mills where wheat and cereals are ground. At the same times the author notes that the city is surrounded with enemies, yet the people in Tbilisi are hospitable especially towards scholars and scientists (Sikharulidze, 1976, p. 34).

Abu Dulaf – an Arab poet and scientist visited Tbilisi in mid tenth century. According to him, Tbilisi is an outpost of Islam, surrounded by *dār al-kufr* (countryside was in the hands of infidels). Yakut al-Hamawi al-Rumi provides the same information. Abu Dulaf recollects River Kurr, which has water-mills(‘urūb) for milling purposes, a fence and baths “that do not need heating or the pumping of water” (Dulaf, 1967, p. 55).

Al –Mukadasi (died. about 990) - an Arab author of the tenth century, notes that “Tbilisi is located on both sides of Mtkvari that are linked with a bridge of stone walls faced with wood” (Japaridze, 1967, p. 62).

Sadr al-Din ‘Ali Al-Husayn, an Arab author of the twelfth century, informs us on the strength of the traditions of Christianity in spite of the Islamic rule. The author remarks that they had the most popular church which was as important for local Christians as Ka’ba is for the Muslims (Al-Husayn, 1967, p. 66).

Al-Idrisi, an Arab traveler and geographer of the twelfth century, relates that the Tbilisi madder - popular in all Middle East - was exported to Gurgan and from there to India” (Japaridze, 1967, p 60).

Various authors have preserved records on the traditions of tolerance and national policy in Tbilisi. Al-Fariqi (1116- 81) who arrived in Tbilisi in 1153 and started to serve Demetre I, provides reliable information on the Georgia at the time of David and the subsequent period. He informs us that in the first decade of the twelfth century David made Tbilisi pay the contribution of 10,000 dinars every year. The local population paid the contribution before the integration of the city. After the city was seized, the citizens had to pay taxes were varied according to their ethnic affinity: Georgians paid five dinars, Jews – four dinars, and Muslims – three dinars. Based on the information of the Arab witness “The king respected Muslims. Scholars, theologians and sufis were respected and appreciated even more than by Muslims themselves. The trend continued in the time of Demetre I. The author relates how the king of Georgia went to mosque, attend Khutba, then “Went out and made a donation of 200 red dinars...I

saw the respect for Muslims that they would not even have in Baghdad”, states the author (Sikharulidze, 1976, p. 83-91; Kiknadze, 1992, pp. 90-92).

Sibt Ibn Al-Jauzi (1186-1257) notes with satisfaction that after the seizing of Tbilisi David the Builder “at times alone and at times with his children, went to the main praying place of Muslims – the Mosque, on a religious day of Muslims - on Fridays and listened to prayers, and the reading of Koran there. He presented the clergy with immeasurable gold”. He built an asylum for poets and suphies, helped them financially, and organized balls for them” (Tskitishvili, 1967, pp. 204-20).

Ibn al-Athir (1160-1234) - a famous Arab author of the twelfth and thirteenth centuries, informs us about the liberation of Tbilisi by David the Builder and the conquest of the city by Djalal al-Din: “They slaughtered all Georgians that were there. Neither the old nor the young could escape the anger of Djalal al-Din except those who converted to Islam”. The author does not hide the fact that the troops of sultan mistreated Muslims living in Tbilisi, “They tortured them unjustly. The poor wrote a message to Georgians begging them to come back. They promised to open city for Georgians for this purpose” (Ibn Al- Asir, 1940, p. 160). Tbilisi is one of the strong and inaccessible cities situated on both sides of Mtkvari. It is a big river “.

In some sources Tbilisi is presented as a cultural, scientific and educational center. As-Samani (1113-1167) an Arab writer of the twelfth century pays a special attention to the people whose *nisba* (relative name) was *al-Tiflisi* (Tbilisi residents) and *-Kurdji* (Georgian). There were Georgians among them who had relations with scientific centers in Jerusalem, Damask (Damascus), Merv (Marw), Baghdad, Nishabur, Aleppo (Halab), Mecca (Makka), Isfahan and others (Sikharulidze, 1967, p. 63. n.d.; Japaridze, 1990, pp. 65-78).

Yaqut al-Hamawi al-Rumi,, an Arab author of the thirteenth century has left us an interesting description of Tbilisi. “Taflis or Tiflis” is the capital of the Djurzan region. This is a city, beyond which Islam is not spread. There is a river called Kurri flowing in the middle. It flows into the sea. There are millstones in the river for grinding. The city has a big fence around it. There are very hot springs that do not need heating or water-pumping... This is a hot spring that comes from the earth...this bath, as many of the Tbilisi residents told me, is for Muslims and others are not allowed to use it” (“Evidence of Yaqut on Georgia and the Caucasus”, 1964, p. 38).

There are records on the attack of Bugha Turk in the work of Zakariyya Al-Ghazwini (died in . 1283) – an Arab geographer and cosmographer of the thirteenth century. The author states that “Tbilisi is a fortified city. It is divided by Kur River. The residents are Muslims and

Christian. On one of the banks of Kur one could hear the call of mu'adhhdhin, on the other - the peals of the Christian nākūs (ring bells) to summon the community to divine service". The author also remembers "a very hot bath where the water is neither heated nor pumped". According to the data of Al- Ghazwini, the following goods were exported from Tbilisi: quick-silver, birch, felt cloaks, outfit, neat carpets, beds, fine shawl, silk, etc. Right here, there is a reference to the gold coin "perpera" ("Evidence of Zakariya Al-Ghazwini on Georgia and the Caucasus", 1975, p. 40).

Abu-l Fida (1273-1331), an Arab historian and geographer, relates the last period of the Tbilisi Emirate (Fida, 1967, p. 55).

The Arab historian Ibn al-Fuwati (1244-1323) provides data on the Muslims of Tbilisi who worked in the Maragha Observatory (Japaridze, 1984, p. 218-223).

The Arab historian of the thirteenth century Muhamad al-Hamawi narrates that David the Builder used to have debates with Gandja Kadi on the origination on the eternity of Jesus Christ (Japaridze, 1995, pp. 218 – 223).

An Arab author of the thirteenth century (died in 1249) Shihab al-Din Muhammad an-Nasawi, a private secretary of Khwarazm-shah Djalal gives a full description of the seizure of Tbilisi. He narrates that "they exterminated all Armenians and Georgians in the city", i. e. all Christians. Georgian troops and noblemen sought refuge in the fortress hoping that the troops of Djalal al-Din would not be able to cross the river. But when the invaders went over the bridge and laid siege to the fortress, Georgians asked for mercy. And Sultan got whatever was created in Tbilisi for centuries. Even the most skilled and informed person would find it difficult to measure all the wealth. Hillocks of packs of paper would not be enough to make a complete list of the wealth". The same author informs us on the Tbilisi arson and occupation of the city and the participation of the husband of Rusudan – the son of the ruler of Erzurum. An-Nasavi's description goes as follows: "Tbilisi is built on the bank of Mtkvari, in mountains and valleys. The river separates the city from the fortress. It is a wide river and impossible to cross. There is a big wooden bridge between the city and the fortress. But it was burnt" (Shikhab ad-Din Mohammad an-Nasavi, 1973, p. 168).

'Abd al-Rashid al-Bakuwi's (fourteenth and fifteenth centuries) information is essentially the repetition of the notes on Tbilisi left by the forefathers. "Tiflis, situated at longitude 83°05'E and latitude 43°05'N, is a fortified city beyond which there is no Islam. It is the capital of the al-Kurdj (Georgia) state. It was founded by Khusraw (Khosro) Anushirwan and fortified by Ishaq Ibn Isma'il, the maula (client) of Umayyads. Tiplisi is cut by river Mtkvari. The locals are Muslims and

Christians. One can hear Azan on one bank of River Mtvvari and the ringing of bells - on the other. The roves of the city are made of Italian pine-tree. Among the marvels of the city, there are baths where the waters are neither heated nor pumped, since the baths are built on hot springs” (Abd Ar- Rashid Al -Bakuvi, 1971, p. 90).

Persian Sources

Georgia has had relations with the Persian speaking world since ancient times. Yet, unfortunately few written sources have been preserved and the information that available about Georgia and Georgians mostly comes from Turk-Seldjuk tribes for whom Persian was the official language and the language of clerical work. Persian was the basic language for historiography as well. The language was used in the states of Ilkhans, Black and White Shepherds, hence the historiography was created in Persian. There are some interesting records in the historical works written in Safawid Persia. The interest for eastern Georgia is natural as well. It shows that Safawid Persia as well as the other above-mentioned states, exercised control over eastern Georgia, according to the established tradition. Here we can see notes on Tbilisi. In some case the information presented here is the same as the information of the sources analyzed above.

However, there is an exception; the tenth century anonymous geographic work “Hodud al- Alam”, which describes Tbilisi as “a big flourishing city, strong, cultivated and wealthy in many ways. It has two walls and it is a Islamic boundary with the land of the unbelieving. River Mtkvari flows in the middle. It has a spring, very hot, upon which they have built baths where the water is always hot, even without warming” (Istakhri, 1937, pp. 22-24).

In the historical chronicle written in Arabic in 988/89 by the Iranian Hasan al-Qummi (died in 1015/16) “The History of Qum”, the original Arabic version of which has not been preserved to this day and about which we only know from a later period (early fifteenth century) Persian translation – there is a citation of one Shi’i hadith associated with the name of Imam Dja’far al-Sadik (died in 765), where Tbilisi (Tiflis) is mentioned among the three cities distinguished by God. The context of the hadith is the proof of the popularity and authority of the city in the middle ages Islamic world, especially in Shi’i circles. We can meet the Shi’i hadith in question in other Persian and Arabic written sources of the later period (seventeenth to nineteenth centuries) .

According to the Persian historian Bayhaki (1099-1170), Arabic was spoken in at the Georgian court . The author relates that in 1148

the King of Georgia Demetre I sent questions to the Sultan of Seljuks in Syrian and Arabic languages and Bayhaki was to answer the questions (Kiknadze, 1992, pp. 100-101).

According to an author of the second half of the twelfth century, Nadjib Hamadhani, "Tbilisi is a big and wealthy city and has two strong fortresses". He also notes that there are 40 baths in Tbilisi. In some cases there are certain discrepancies in the different manuscripts of the work. According to one of them, the water was naturally warm in the springs. In another, there is a remark "when one bath was warmed, all the others were warmed, too". The same author emphasizes the beauty of Tbilisi women who sit in stores and do not hide their faces (Kiknadze, 1992, pp. 102-103).

The Persian historian Ibn Isfandiyar (12-13 cc) informs us that Tbilisi was popular for its fabrics. The author remembers Tamar as the Padishah of Abkhazia and Tbilisi (Beradze, 1976, p. 70).

The narration of witnesses is especially important. One of such anonymous witnesses was in Georgia in 1210 as a captive. Seemingly, he saw Tbilisi and later gave a detailed description of the city in his work "Adja'ib al-Dunya" (Wonders of the World). At the same time, in some cases he gives information used by his forerunners. However we can trace a difference: "Tbilisi is a big fortified city. It is situated in a gorge that is difficult to pass. In the river that flows in the city there is a single-span bridge. There are a lot of trading places by the bridge. There is a well-equipped fortress just across the river. The palaces of the kings are built in the fortress. The fortress has many towers. Very close to the fortress there runs water. So whatever is thrown from the windows falls into the water". The author repeated the information that Tbilisi belonged to Arran. However he also notes that "Georgians have now owned it for about 110 years" ("Evidence on "the Wonders of the World" on the Caucasus and Georgia", 1978, p. 28).

There is information about one of the mills with chains, which is a copy of a bridge over a big river in one of the cities of Andalusia. That the author compares it to the bridges of Tbilisi and Baghdad. Unlike Nadjib Hamadhani, who remembers only 40 baths, the number of baths here is 65. The author relates that the water in the baths has been created hot by the Most High God without fire. The author states that though locals of the city are Muslims, they are firm monotheists. They love foreigners. There are many mosques in the city and they call for prayers well. There is also an indication that there were non-Muslims in the city. The source repeats information about women who do not cover their faces, unless they are Muslims. In the end, there is a list of goods that Tbilisi was popular for: horse equipment, arms, sweets, beeswax, expensive furs, glass, bowls, crystal products, etc.

The Persian historian and civil servant Djuwayni (1226-1283) has preserved some important information on the attack by Khwarazm-shah Djalal al-Din on Tbilisi and the hold-up of the city in 1226. The author notes that “he dug each fortress or village in the vicinity of Tbilisi that were filled with the followers of the devil (i.e. Christians) and his retinue got immeasurable booty” (“Evidence of Juveini about Georgia”, 1974, p 32-33).

Rashid ad-Din, a historian of the thirteenth and fourteenth centuries and a courtier of Ilkhan provides information on the attacks of Mongols and Khwarazm-shah Djalal al-Din (Rashid ad-Din, 1952, pp 194-195).

Hamd Allah Mustawfi Qazwini (1281-1350) describes Tbilisi alongside many other geographical places in his cosmographic-geographic work “The Pleasure of Hearts”. Like many other monuments, the author first remembers baths built on the naturally hot springs of the city. He describes Tbilisi as “the capital of the united Georgia, which is situated in a fallen gorge, one side of which borders on the mountain. There is River Mtkvari flowing in the middle. There are houses on the rocky bank of the river, located by terraces” (Puturidze, 1937, p. 23).

There are short notes on the history of Georgia and Tbilisi and among others in the works of Persian authors of the fourteenth and fifteenth centuries (Tabatadze, 1974, pp. 6-14; Katsitadze, 1975, pp. 7-26). e.g. a Persian author Fasihi Khafi (1375-1442) (Katsitadze, 1967, p.65) tells of the first attack of Timur Lang, the ravage of Tbilisi, captivity of the King of Georgia Bagrat V and his conversion to Islam. Even expensive presents — including David the Builder’s armour which he presented to Timur Lang according to Fasihi Khafi — could not save the king of Georgia.

The same information about the attack of Timur Lang on Tbilisi, the captivity of Bagrat V and his conversion to Islam is presented in the work of ‘Abd al-Razzaq Samarqandi (1413-82), a Persian-speaking author from the Middle Asia (Samarqandi, p. 55. n.d.).

In connection with the fact we should mention Hafiz-i Abru (died in 1431) (Haphere Abru, p. 66. n.d.).

According to Sharaf al-Din ‘Ali Yazdi (1454), Tbilisi was a strongly-fortified city. But the warriors of Timur Lang attacked the city from all sides, occupied it, exterminated all the watchmen, captured King Bagrat, and put shackles on him (Katsitadze, 1967, p. 66; Tabatadze, 1974, pp. 64, 67). The “faithless ... Georgians were fortified in their fortresses. They fortified their fortresses and prepared for war”, “The faithless were sent to hell by swords”. That is repeated by ‘Abd al-Razzak Samarqandi and Mirkhwand.

Notes of same nature are preserved in the work of the author of the first half of the fifteenth century Mu‘in al-Din Natanzi (Katsitadze, 1967, p. 62; Katsitadze, 1975, p. 118).

In his book Nizam al-Din Shami (fourteenth and fifteenth centuries), who lived in the palace of Timur Lang, relates the same events devoted to the life and work of Timur Lang. At the same time, he also narrates how Timur Lang delivered presents to King Bagrat and appointed him as a ruler (Nizam ad-Din Shami, 1967, p. 62).

The Persian historian Ibn Ruzbihan (fifteenth century) has left interesting notes on the relations between Georgians and the White Shepherds Turkmen. According to him, Uzun Hasan the ruler of the White Shepherds Turkmen seized Tbilisi in 1477 and appointed Sufi Khalil Beg as a ruler. As it later appeared, Georgians returned to the city soon. The same author relates the occupation of Tbilisi in 1489 by Sultan Ya‘kub, by the same the White Shepherd Turkmen and the disposition of a small garrison there (Kiknadze, 1992, pp. 115 – 128; Kiknadze, 1995, pp. 113, 117, 193).

One of the important sources on the Georgia of the sixteenth century is the work of the Persian historian Hasan-i Rumlu (1531 or 2 to the late 1570s). The author gives us a detailed account about Georgia, the attacks of Shah Tahmasp I, the siege of the Tbilisi Fortress, the capture of many of people and the taking of a great deal of wealth from Tbilisi (“Evidence of Hasan Rumlu on Georgia”, 1966, pp. 22-23).

The Persian-speaking Kurdish author Sharaf ad-Din Khan Ibn Shams-ad-Din Bidlisi (born in 1543) informs us about the campaign of Diw Sultan and Shah Tahmasp I in Georgia and the seizure of Tbilisi by him, and on the commander of Tbilisi garrison –Renegade Gulbat and his sons (Sharaf-Han Ibn Shamsaddin Bitlisi, 1976, pp. 64-65; Tabatadze, 1962, 159-187).

The Persian historian of the later period Iskandar Munshi (1560-1634) supposedly was a witness of the seizure of Tbilisi (1606-7) by Shah Abas I. The author gives us the description of the city fortress and notes that Tbilisi was a well-fortified and defended city: “There was a strong bridge over the river. The only baths of the people of the city there were only baths with fresh water. A few baths are inside the fortress, the others are outside. There are about thirty or forty baths today. Some of them work, others may start to work. The towers of the fortress are so high that they reach the sky. There is river on one slope of the mountain. Therefore no ruler of the country could imagine that the fortress could be taken because it had three high mountains on three sides. There is River Mtkvari flowing on one side and therefore there is no location of the troops close to fortress and the city”. “The majority of the city residents are Armenian and Georgian Christians. There are some Muslims

as well. In the city and the suburbs there are many Christian prayer houses (mostly ancient)“ (“Evidence of Iskander Munshi on Georgia”, 1969, pp. 64-65).

Safawid author Urudj Bey Bayat (known as Don Khuan the Persian, died in 1605) — whose work was written in Persian — left some evidence about Tbilisi. The only preserved text, a Spanish translation, was published in 1604 in Validolid. The text from Spanish to English was translated and published by G. Le Strange in 1926. In 1959, in Teheran, a Persian text translated from English was published. Oruj Bey Bayat accompanied Shah Abbas I’s embassy to Spain. In his book he narrates the events of the second half of the sixteenth century, namely the attack on Tbilisi of the commander Lala Mustapha Pasha, the subsequent fight for the city, and the entrance into the city by Sinan Pasha, Ferhad Pasha. It becomes evident how hard it was for the Ottomans to keep Tbilisi in the conditions of the permanent fight on the side of the Georgians. “The capital city situated on Mtkvari which meets Aragvi”, notes the author (“The Book Of Oruj Bey Bayat”, 1988, pp. 103, 106, 115).

The Persian poet of the eighteenth century Saphi Khalkhali devotes a special tribute to Tbilisi. He believes that Tbilisi is “the rival of Paradise. Even the Garden of Eden is nothing as compared to Tbilisi. God was merciful to spend all the good the city ... people who came to Tbilisi forgot their motherland” (Saphi khalkhali, 1967, p 63).

General Majd al-Saltane, a representative of the Qadjar Dynasty who traveled in the Caucasus in 1894, gives us an impressive picture of Tbilisi: “Tbilisi is the provincial center of Georgia. There is the Batumi-Baku Railroad built on both sides of River Mtkvari on the length of one parsang (six or seven kilometers). In the city center there are several boulevards where there most administrative buildings, civil and military museums, hotels (London, The Caucasus, Versaille, Grand Hotel), churches, theatres, a circus, and public clubs are concentrated. There are lamps on the boulevard”. According to the author, there were tram lines in all the streets of the city and 3,000 phaetons to be rented. Here there was also a factory for the production of phaetons and coaches, the products of which were taken to Iran. There were also factories for the production of planting machines, medical institutions, pharmacies, precise mechanism shops. The author mentions baths, telephones, bicycles, the army, the clothes of soldiers, places for the disposition of the army, women’s morale, the myth of the Sanan Tomb on the Mount Mtatsminda (Majd al-Saltane, 1971, p. 17, 25-45).

Memoirs and travel books – reflecting impressions received during journeys to South Caucasus, namely visits paid to Tbilisi - of many of the Persian authors contain interesting information on Tbilisi of the nineteenth century. Among these Persian authors are: Mirza Salih

Shirazi, Sultan Muhhamad Sayf al-Dawla, Mirza Mehdihan Momtahaen ad-Dawla, Mirza Khanlari-Khan I'tisami al-Mulk, Muhammad Hasan Khan I'timad al-Saltana (Sani' aa-Dawla), Farhad Mirza Motamad al-Dawla Haj Saiahi, Mirza Muhammad Husayn Farahani, etc. There was the Shah of the Qadjar Iran – Nasir ad-Din (1848-1896) who visited Tbilisi during his three trips from Iran to Europe (1873, 1878, 1889). The latter included impressions of Tbilisi in the description of his journeys.

European Sources

From the fourteenth century Catholic missions were founded in Georgia, first in Sukhumi in 1318 and in Tbilisi in 1329. The envoys of the Pope came with missionary purposes. Many of the missionaries impart important information on the Georgia of the time, including Tbilisi. Italian merchants also give us different notes (Tamarashvili, 1902 , p. 32).

Pope John XXII believes that “Tbilisi - the center of the Georgian Kingdom – is the best, most amazing, full with people, skilled, and wealthy city”.

“After a lot of consideration and intensive talks with our brothers, upon their advice and proceeding from our full right as apostles... we are instituting the famous, wonderful and appropriate city of Tbilisi as an episcopal city to praise our Lord... We would also love this name to be preserved in the future: the episcopal city of Tbilisi... We have also decided that there should be built a cathedral church upon which we confer the episcopal title”...(Tamarashvili, 1902 , p. 34) says the Bula of 1329 of John XXII .

The famous Venetian traveler of the thirteenth-fourteenth centuries Marco Polo (1254-1324) recollects Tbilisi as a city of craftsmen, with a prosperous population (Marco Polo, 1967 p. 62).

Flemish traveler of the fourteenth century Wilem Rubrucvis also remembers Tbilisi. He states that River Mtkvari, which “cuts the main city of Georgians across” lies in the basis of the name of Georgians (Kharadze, 1987, pp. 43-44).

The famous Venetian merchant of the fifteenth century Josafa Barbaro, who came to Tbilisi in 1475, describes the 1477 White Shepherd Turkmen occupation of Tbilisi with an army of 30-35 thousand with 20-24 thousand cavalrymen. He relates that the population fled in advance. Uzun Hasan took four or five thousand hostages from the city without any confrontation (“Italian Travelers in Georgia in XV c. Josaphat Barbaro and Ambrozio Contarini”, 1894, p. 56; “Evidence of Italian travelers of fifteenth century about Georgia”, 1981, p. 56).

Venetian Ambrosio Kontarini was in Tbilisi two times in 1475. He noted that there was a Black Plague epidemic in Tbilisi, the city was destroyed. The segments of the city that had not been attacked were quite densely populated, with a considerable number of Catholics among them (Mamistvalishvili, 1981, p. 56).

A witness Giovanni Maria Anjolelo confirms the information on how Tbilisi left by the population was seized by Uzun Hasan in 1477 (Mamistvalishvili, 1981, p. 78).

An anonymous Venetian author of the second half of the sixteenth century informs the Venetian Senate of the conquest of Tbilisi by an Ottoman commander Lala Mustapha Pasha in 1578 (Tbilisi, 1967, p 55).

Italian Thomaso Minadoi, who accompanied the Ottoman army as a doctor during the 1578-1585 eastern campaigns, is the author of some interesting information on eastern Georgia and Tbilisi in particular. He imparts that in 1580 a Turkish commander Sinan Pasha appointed “one Georgian nobleman as the ruler of Tbilisi. Because of an old hostility with Simon, the man had taken the Turkish side and was accepted by it in such a way that Sinan Pasha relied on him to protect the fortress” (“A History Of The War Between The Ottomans And Persians In Four Books”, 1588, p. 149).

An Italian Chronicle confirms “that Sinan Pasha appointed a Georgian renegade, who used to be a servant of the old owner of Tbilisi, as the Pasha of Tbilisi” (“The Turkish-Persian War and Christian Georgians”, 1987, p. 41).

In the beginning of 1663, after a long interval that was followed by the movement of missionaries to western Georgia at the time of King Rostom, a group of missionaries of three Padre entered Tbilisi. On October, 23, 1663 a missionary Serapino Melikokel relates in his report the establishment of a new mission: “Though this Georgian king has been converted to Islam, he still accepted us very well. He gave us two houses: one for us to live in and another for a small church. People respect us and the king appreciates us” (Tamarashvili, 1902, pp 223-224). Later, on March 30, 1671, the same person narrates the reopening of the school closed the previous year on the order of the Catholicos. “We teach Georgian, Italian and Latin to youngsters” (Tamarashvili, 1902, p. 237).

In the letter of Padre Bernard Neapolitan of 1672, there is a narration on the success of the missions, including the mission in Tbilisi (Tamarashvili, 1902, p. 238).

The French traveler of the seventeenth century Jean Sharden (1643- 1713) – who was in Tbilisi from September 1673 to February 28, 1673 – preserved a lot of information on Tbilisi. According to him, “Tbilisi is one of the beautiful cities. Yet, it is not very big”. There is a ref-

erence to River Mtkvari: “on the bank of which most houses are built on a steep cliff. Apart from the riverside, the city is surrounded with a magnificent solid wall”. In the South, on the slope of a mountain there is a big fortress. The residents and the population there are only Persians”. Though the city belongs to an Islamic state and there were several attempts to build Mosques there, Sharden remarks that “There is not a Mosque in the city”. “People would rise in no time. They would start destroying the construction and attacking the builders”. Later the author also observes that the sovereigns rejected Christianity only formally, “All the external signs of Christianity are preserved in the city. All churches have crosses above church towers and numerous ringing bells. Alongside other sorts of meat, pork is also sold in public, without hiding. As for wine, you will come across it in every corner”. In spite of the fact that the densely populated Tbilisi was culturally and ethnically diverse, as Sharden puts it and “nowhere in the world you will meet so many foreigners, they are all involved in trade”. There are 14 churches in the city. The Catholic author considers that “This number is too big for a country where the significance of faith is diminished to the extent”. Sharden describes each church separately, yet puts a special emphasis on Sioni, “erected on the bank of the river and built out of fine carven stone. It is an old construction and looks like all old oriental churches”. The author recalls sulfur baths, shops, caravansaries, the city council buildings, gardens. He gives the description of a sovereign’s palace, which is “beyond any doubt one of the beauties of Tbilisi”. Sharden relates the activities of Catholic missionaries in Tbilisi and evaluates them as not quite successful. The author believes that one of the reasons is the obstinacy of Georgians who regard their rules more correct. Sharden makes a short historical deviation and remembers the attack of Bugha Turk on Tbilisi, the burning of the city, the slaughter of 50,000 people, the entrance of Djalal ad-Din into Tbilisi and the devastation of the city. The author presents the first graphical image of the city (1671). In the picture, the city built on the bank of Mtkvari is encircled with fences. as for the left bank of Mtkvari, only the Metechi Church and the surrounding territory have fences.

At a nadem (dinner-party) in the palace of Vakhtang V “The whole hall was illumined with 40 big torches. Four of them, which were close to the King were made of gold, the others were made of silver”. There were 120 bowls on the table. 1,000 pitchers and horns, 60 jugs, and 12 silver bowls, gold jugs – plain and enameled. Bowls and jugs, some were covered with gold, some decorated with gold and others decorated with gems and silver (The journey of Jean Sharden in Persia and other Eastern countries, 1975, p. 295, 303,317, 321 – 326).

A Frenchman Jean Baptist Tavernier (1605-1689) emphasizes the fact that “especially in Tbilisi Georgian women have one more advantage apart from their beauty: they have more freedom than other Asian women”. The same author remarks that in Georgia women are better at writing than men (Polievktov, 1935 , pp 181-182).

Dionijo Carli da Pianchenca, a representative missionary of the Capuccin Order, has left important information on eastern Georgia of the last quarter of the seventeenth century . He points out that the city that used to be located on the trade roads was left beyond these roads at his time and started to decline from the 1670s. By the year 1681 the population of Tbilisi reached 12,000. The author stresses the positive attitude of Georgians to Catholics and states that Giorgi XI, when he learnt about the Vienna victory started learning Italian himself. The author describes Tbilisi as “situated between two mountain ridges. The main part of the city is on the plain, while the rest of it is on the slope of a mountain. It is surrounded with a wall on three sides. There is River Mtkvari on the forth side. In the south there was erected a fortress, where there is the Persian garrison. Across the bridge there is a fortress city, yet as compared to the city it is on quite an elevated area...The market is the most beautiful part of the city. The products here are most cheap” (“Description of Tbilisi by Dionijo Karli”, 1951, pp. 157 – 182).

In the numerous letters sent from Tbilisi to Rome by European missionaries disclose interesting information on their confrontation with Armenians. They state that Armenians strove to drive Catholics away from Tbilisi and Georgia in general. The Georgian king did not support them in this confrontation. In the letter of May 15, 1679 Padre Ioseb relates: “The Blessed God gave such a heart to the Georgian King, though he is Islamized, he never uttered a word in favour of the Armenians. One word would be enough to destruct our Church” (Tamarashvili, 1902, p. 252).

The letter of Padre Julio Kremoneli of August 30, 1690 has the same content : “Though there is a hell fury aimed at wiping away and destroying the mission in Tbilisi to the present day, we thank our Lord that thanks to Him the mission has amazingly prospered in terms of faith in God and the number of people who have been converted to Catholicism” (Tamarashvili, 1995. p. 667).

In the information on Georgia given in the Dictionary of Erbelo (1697) there are some notes on the capital –Tbilisi, too.

The first European scientist who became interested in Georgia, was a French doctor, botanist, and member of the Academy of Sciences of Paris - Joseph Tournefort. He visited Tbilisi in 1701 and recalled it as “a big and densely populated city, with well-set baths “that are also an entertainment place for the citizens”. “The houses here are near the

ground and poorly lighted. They are built with in a simple way with fired bricks. The streets are paved in an ugly way. Above the fortress city, there is a fence which, though located on a good place, is half destroyed and only protected with a weak tower". The scientist liked the palace of the king and described it in great detail. Joseph Tournefort is the author of a graphic representation of Tbilisi with fence (1701). In this representation the farther part of the fence is densely populated on both sides of Mtkvari (Turnefor, 1988, p 44).

On April 15, 1708 Brother Reginaldo Lentiteli presented a gloomy picture of the mission in Tbilisi: "The mission of Tbilisi, which was founded forty-eight years ago, has never been persecuted as brutally for such a long time as it is now. It has never had so many enemies. While the enemies in the past were only Armenians, this time there are Greeks and Georgians among them, too. A Greek patriarch of Jerusalem wrote a letter to the King and other noblemen from Constantinople, in which he demanded categorically that European padres — as tempters and liars -- be driven away from Tbilisi" (Tamarashvili, 1995, p.668).

There are similar notes in a letter of Padre Angelo Popieli of April 18, 1718. Padre relates the rout of the Church by the Armenians of Tbilisi (Tamarashvili, 1902, pp 335-336).

In the eighteenth century France became interested in Georgia and Georgians. Tbilisi is mentioned in "Persian Letters" (1721) of Sharl Luis Montesquieu. In an article devoted to Georgia and the Georgians in the French Encyclopedia of the eighteenth century, Luis de Jokour mentions various cities separately and refers to Tbilisi as: Teplis, Taplis, Tiplis.

A German surgeon Schneese who participated in the ambassadorial mission of Persia in 1733-36 recollects Tbilisi, too (Polievktov, 1935 , pp. 173-174).

Unlike some of his forerunners Peisonnel, the French traveler of the 1750s and 1760s, stresses the significance of Tbilisi as the trade crossroad where there pass caravans form Ganja, Yerevan, Shamakhi, Tebriz, Erzurum every day ... "and every month 150-200 good arabas are taken from there to Yerevan, Erzurum, Tebriz". "It is a fact that this city is a storing place of caravans taken from Persia to Constantinople, Smirna, Aleppo and the caravans taken from the above cities to Persia", declares the author (Gvritishvili & Meskhia, 1952, pp. 165-166).

Jiulio Bonaventura Trente (eighteenth century) — an Italian monk of the Capuccin Order — provides information on the persecution of Catholics in Tbilisi and the attitude of Anthon Catholicos in his report of December 12, 1755 (Polievktov, 1935, pp 187-188).

Although the plays of a Italian Dramatist Karlo Gocci were staged in 1762-64: *Woman-Snake* and *Blue Monster* as well as *A Wonderful*

Georgian Woman staged by Karlo Goldoni the previous year were not written about by witnesses, they clearly point out the popularity of the Georgians and Georgia. One of the characters of a play by Karlo Gocci is the King of Tbilisi and the action takes place in the vicinity of the city. Tbilisi is mentioned as the capital of Georgia.

In 1770 Sharl De Grai De Fua , a French officer to Georgia with the army of Tottleben, came. The officer stayed in Tbilisi in the palace of Erekle II. He gives us some information about Tbilisi: “The city stands on River Mtkvari. It is surrounded with good walls. There is a mountain in the city that has a good fortress built on it. The length of the city must be up to half a mile, in width - a quarter of a mile. The city is populated by Georgians, Tatars, and Armenians. The market of the city is quite big: caravans from Persia often come here” (“Evidence of De Grai De Fua on Georgia”, 1985, p. 46).

Johann Anton Guldenshtadt, a German scientist working in Russia, visited Georgia in 1768-72. The scientist described Georgia and Tbilisi. According to his data, the population of the city was 20,000. These were Georgians, the Armenians and Tatars. All of them had their places for worshiping and churches. The author mentions 15 Churches of Georgians, and 20 churches of Armenians, one church of Catholic Armenians, one Armenian monastery and three Mosques. He also draws attention to the baths. He talks about Georgian and foreign currency in circulation in Georgia. He lists the goods and products he saw in the city: brocade, broadcloth, woolen stuff, silk and cotton fabrics, leather, furs, iron, copper, alum, tobacco, fish, rice, all sorts of products, timber. The German scientist draws our attention to the activities of the population “There are various craftsmen in the city: leather masters, dyers, knitters, blacksmiths, etc.” There were factories for salt and soap production, a bullet production factory, a mint, a glass producer’s, a dye-house, a printing house, etc (Gelashvili, p. 57, n.d.; “Guldenshtedt’s Journey in Georgia”, 1962, 1964. p. 87, vol.I; p. 21, 177, vol. II).

Iakob Reineggs - a German doctor living in Russia - was in the palace of King Erekle II in the eighteenth century. He taught German in a school for children. He opened a medical college and the noblemen school. Iakob Raineks taught artillery tactics to the Georgian military. He headed the printing-house and ordered a printing machine for it from Vienna. He was also the teacher of prince David Bagrationi. Iakob Raineks is the author of the historical topographic description of the Caucasus.

Ian Pototski from Poland met a traveler from Tbilisi during his journey in the Caucasus (1797-1798). The traveler from Georgia

informed him that in the distance of three versts from the city Avars kidnapped people and cattle and these attacks were caused by the fact that the King of Georgia stopped paying tribute to the Avars a few years before (Rainegs, 2002; pp. 10, 13, 15, 18, 19, 20; Rainegs, p. 62. n.d.; Polievktov, pp. 162-165. n.d.).

In his letter of August 4, 1800 sent from Rome to Tbilisi, Franchiske Padoeli presents a situation in Tbilisi after invasion of Agha Muhammad Khan: “Five years ago Persians invaded this ill-fated city unexpectedly and burnt almost the whole city. We are in a rented house. Our Catholics are almost all left homeless; they have a lot of debts and have no idea how to pay them back” (Tamarashvili, 1995, p. 699).

A lot of Europeans serving in Russia saw Tbilisi in eighteenth and nineteenth centuries. Some of them passed on some important information about Tbilisi.

Wilhelm von Freygangs (1783 – 1849), a German residing in Russia, devoted a book to Georgia during in his journey in the country, from where he was sent to Persia to conduct negotiations with Abas Mirza. A bigger part of the book belongs to his wife Frederica Kudriavskaia (1790-1863). The book provides a detailed picture of the destruction in Tbilisi after the attack of Agha Muhammad Khan. Though, there is also information on new schools, houses, markets, an old fortress and a caravanserai. The authors are fascinated by site of the city and the view from the elevated bank of the river. They mention baths where the people spend a whole day and even a night per week; the noblemen; one of them – Tekla, the daughter of King Erekle II - seems to have made a special impression on the authors (Polievktov, 1946, pp. 56-58).

Heinrich Julius von Claproth from Germany spent the period from January 13, 1808 to July 1808. He informs us of the size of the population, which was, 18,000, not including Russians (Claprot, 1967, p. 61; Polievktov, 1946, pp. 107 – 111).

A German Professor working in Russia - Dietrich Kristoph Romel remembers the Tbilisi of the beginning of the nineteenth century as a populous city where Orthodox traditions are observed (Gioshvili, 1967, p. 63).

The Belgian colonel Rottiers of the Russian Army, who traveled in Georgia in 1811-18, remembers Tbilisi in the “Guide between Tbilisi to Constantinople” (“Itineraire de Tiflis a Constantinople par le Colonel Rottiers”, 1820, p. 116).

According to the French scholar De Lil “Tiflis – the capital of Georgia- is not a big city ... But it is the most beautiful and the most

important city of Persia. The River Kura flows in the middle of the city. There are houses built on steep cliffs of its banks. The city is in a forest and surrounded with a fence. In Tiplis there are up to 14 churches. Georgians have six churches, the Sioni Cathedral is the most important of them. In spite of the fact that Tiplis is under the Muslim rule and the region is run by a Muslim King, Persians have no mosque in any place apart from the above mentioned fortress. Georgians are free, relentless and brave. And though they have been subjugated, they still have preserved a military spirit to return liberty” (Iamanidze, 2006, pp. 233-234).

In 1817 two Englishmen, Colonel Johnson John and artist Porter Roberto Ker , traveled to Georgia. The authors liked the location of the city and the sulfur baths. Johnson even compared the baths to a fashionable resort in England Cheltenham. However he did not like the Georgian dancing and the way Georgian women dress (Polievktov, p. 104; Polievktov, pp. 132-134). Ker Porter describes the old narrow streets of the city. Though he also points out that new roads are being built and the construction process is underway. He approves of the way men dress but criticizes Georgian women in this respect. He recognizes the beauty of Georgian women yet dislikes the cosmetics they use.

In the poem “the Lighter of Harem” by Irish Thomas More published in 1817, the author depicts the beauty of a young Georgian woman and recollects the hot baths of Tbilisi. There is a comment from the work of an Arab writer Ibn Hawkal, According to the author, “Tbilisi is popular for its naturally hot water.”

The Spanish general Van Don Jean Halen who served in the Russian Army describes the “Ermolov Tbilisi” that he saw with his own eyes in 1819-20 (Van Don Jean Halen, 1967, p. 66; Polievktov, pp. 92-94. n.d.).

In 1820-24 Jacques Francois Gamba, the French Consul in Tbilisi, pays a special attention to the description of the city: “Cyrus or Mtkvari splits Tbilisi into two parts. On the right side there is Old Tbilisi, sulfur baths and the new city, on the left side, there are suburbs Isani and Avlabari and a village populated with Germans”. By his information “there were about 24,000 people in Tbilisi in 1820”. If we compare the figure with the notes of Claproth, we can trace the rapid growth. The authors stresses the significance of Tbilisi as a link between Asia and Europe. He thinks that “ the city can be considered a junction between Europe and Asia” (Gamba, 1967, p. 57; Polievktov, pp. 86-89. n.d.; Polievktov & Natadze, 1929, pp. 74-84).

An English traveler - Robert Lyall who visited the Caucasus in 1822, is another person to provide information about Tbilisi. According to his observation Tbilisi was a quite vivid city but he didn't like it snar-

row and sinuous streets. He thinks new streets in the city were laid by General Ermolov (Roberto, 1967, pp. 20-61; Polievktov, pp. 118-120. n.d.).

A French naturalist - Sharles Belanger visited Tbilisi in 1825 and later described the city (Belanzhe Charl, 1967, p. 56).

Karl Edward Eichwald – a German professor working in Russia - traveled in the Caucasus in 1825-6 with a Kazan University expedition. During the expedition, the professor visited Tbilisi. The author studied the history of the city and gave an extensive narration on it. He regards the history of Tbilisi as “a short description of the battle that the small kingdom waged with its neighbors for over 1,500 years”. And though the author of the narration is informed of the former grandeur of the city, the city was so destroyed after the invasion of Agha Mahmad Khan that he attributed the transformation of Tbilisi into a city to Ermolov (Eichvald, 2005, pp. 33-34).

In 1826 Willian Mantith - English and Indian Engineering Army officer - visited Paskevich's headquarters in Tbilisi. Later the officer described the city (Mantith, 1967, p. 61).

A German Vetter came to Georgia by the military road in 1827. He described Tbilisi, in which he had spent a fortnight (Fetter, 1967, p. 65; Polievktov, 1946, pp. 148 – 149).

In 1828 T. Armstrong spent almost all November in Tbilisi. He compared the city to Naples. He described the life of the city and trade that has big prospect, in the author's opinion. T. Armstrong describes Georgians as strong brave people, who are keen on taking alcoholic drinks, however. He considered Georgian women as most beautiful he had ever seen (Polievktov, 1946, pp. 65-66).

A English traveler – Thomas Alcock – came to Georgia by the military road in 1828. He attended a ball at the Pashkevich's and described the high society of Tbilisi (Thomas, 1967, p. 62; Polievktov, 1830, p. 63).

A English officer Arthur *Connolly* visited Tbilisi in 1829 and enjoyed it so much that didn't want to leave.

More detailed information about the city is preserved by Robert Minen, who was there in December 1829 and January 1830. Tbilisi, by his impression, was joyful, full of life, and significant. He pays attention to the increasing population and developing trade in the city.

According to the data of a Frenchman - Diubua de Monpereaux - by 1834 there were 3,662 houses in Tbilisi, 4,936 families and 25,290 people, excluding Russians (Tiflis, Encyclopaedia of Islam).

An English traveler - Richard Wilbraham visited Tbilisi in 1837 during the visit of the Russian Emperor Nikolai I. The traveler relates about the city that is situated on broad and fast Mtkvari, that flows in the

narrow gorge. He was fascinated by the city in spite of the fact that certain things seemed tasteless to him: "On terraces there are open squares and gardens. There are gloomy ruins of an old castle on a high mountain. On a steep cliff of the left bank there is a modern citadel surrounded by water". The traveler stresses the beauty of the Georgian people. At a ball in honor of the visit of the Emperor, Georgian noblemen "dressed in their magnificent well-designed clothes proved that they are truly the most beautiful people in the world". The author speaks about the beauty of Georgian women separately. When he remembers Germans living there, he notes that German women living there "cannot compete in beauty with the black-eyed sensitive neighbors of theirs". Right there, the author remarks that though "the women are beautiful, they are not organized" ("Richard Wilbraham's Journey in Georgia", Trans. 1990, pp. 17, 20, 27, 41, 45).

A missionary from the USA - Smith Eli visited Tbilisi in 1838. He has recorded some information about Tbilisi (Smith, 1967, p. 63; Polievktov, pp. 138-140. n.d.). In his report of January 25, 1841 one of the missionaries states: "We should pay special attention to our church in Tbilisi out of the newly established churches. Due to insufficient place and the number of foreigners even half of the Catholics willing to enter it, cannot manage to do that... We are thinking of building a new bigger church with the support of your God fearing believing society and hoping to get the assistance of the local population: Georgians and foreigners" (Tamarashvili, 1995, p 715).

Carl Heinrich Emil Kokh – a German botanist who traveled in Eastern countries in 1836 and 1843–44 and visited Tbilisi five times was excited with the city. The traveler notes, "I cannot tell you of any other place that has produced such a pleasant influence on me. Because here, in Tbilisi, the oriental spirit is preserved alongside the European character. . . There has been a gymnasium in Tbilisi for a long time. Of course it cannot be compared to German gymnasia, but it has a clear advantage over some similar French schools in that it has rejected the overly formal style of teaching" ("Evidence of K. Kokh and O. Spenser on Georgia and the Caucasus", 1981, p. 153).

Envoys from Rome inform us on the cessation of activities of the Catholic mission: "On the first day of 1845 there stopped two German two-wheeled carriages at our door... Then there came two police officers attended by courier. They entered the Monastery and dragged us out. . . Catholics were falling in groups before us so as to bid their last good bye. . . On our way we were accompanied by one police officer, Kossaks and other supervisors. They did not leave us till the border with Turkey. In this way they made us leave Tbilisi" (Tamarashvili, 1995, pp. 721-722).

A German traveler of the first half of the nineteenth century, Moris Wagner, provides some interesting information on Georgia and Tbilisi in particular. He describes parts of the city separately. “When I compare the cities of the old world renowned for their wonderful location: Constantinople, Genua, Neapol, Prague, Bursa, Zalsburg, Algeria, etc. to the picture of the Georgian capital, I cannot place Tbilisi in the last place”,- states the author charmed with the beauty of the Georgian women (“Moris Wagner About Georgia”, 2002, p. 32).

The famous French writer Alexander Dumas (1802-70) was in Georgia from November 23, 1858 to January 11, 1859. “I have to confess that when I was traveling to Tbilisi I believed I was going to a half-wild city. I was mistaken”, says the famous writer. He considers that Georgian ladies were only two weeks behind the Italian fashion. This opinion was strengthened at the New Year Party where he met Georgians in beautiful national clothes. He was specially charmed by the women. The author also notes the ethnic diversity of the city population and the numerous visitors. Before Christmas Dumas observes the city again and remarks that “Tiplisi is a broad amphitheatre which is located on both sides of its river as though specially for the celebration. The slope bank of the river was almost full with people. On all the roofs there were representatives of different nations of different colors: the wind was waving silk, satin, velvet, and white veil decorated with gold in such a way that one would think that it was the spring breeze. Each house was like a basket of flowers”. The author remembers the Sioni Church, the sulfur baths and describes the Georgian “supra”.

“Beyond any doubt, I have never seen a hall so delightful as the theatrical hall of Tbilisi in all my life. Ladies with beautiful faces made this hall look even more beautiful” (Dumas, 1988, pp. 196-204). The author remembers the Sioni Church, the Georgian supra and the sulfur baths.

An Englishman John Oliver Wardrobe (1864-1948) traveled in Georgia in 1887. He devoted a book to the country *The Kingdom of Georgia - A Journey in the Country of Ladies, Wine and Song* and presented an exciting description of Tbilisi: “Impression produced by Tiflisi on the mind of a foreigner is unique. Its location, the atmosphere, the various face of the streets, the simplicity and gaiety of the social life – taken together makes a most intensive and pleasing impression”. Being enthusiastic about the Georgian culture and fascinated by Tbilisi, he left us notes on individual districts and streets of Tbilisi. He believed that the best hotels are in Tbilisi. However he advised everyone to find lodging in a Georgian family. The author praises Georgian hospitality and notes that the most disgusting thing for Georgians is stinginess. According to Wardrobe, the population of

Tbilisi was 105,000. In his work, Wardrobe speaks about the ethnic diversity of the city. Apart from Georgians, there lived Russians, Armenians, Azerbaijanis, Persians and a few Europeans (French and Germans). In the end, the author concludes that “Tbilisi is a city where one can live without ever being tortured with sadness” (Wardrobe, trans. 2001, p. 52; Wardrobe, 1967, pp. 64-65).

William Richard Morfil from England (1834-1909) came to Georgia in 1888, visited Tbilisi and after returning home published the article with his impressions from the city. Being in Tbilisi, he visited museum, the Society Disseminating Literacy, editing house of Newspaper *Iveria*, was invited to Ilya Chavchavadze's place, got acquaintance with interesting persons. He also purchased the books there.

A French traveler Levie visited Tbilisi in the 1890s. According to his impression, the city is “a lovely sight. It is not deprived of European motion and buoyancy. There are all sorts of people moving in the streets. You can come across Russian officers, peasants, and women dressed according to the latest Paris fashion” (Emil, 1967, p. 61).

At the end of the nineteenth century Jane Dieulafoy from France relates that Tbilisi was the residence of General Governor of the southern provinces, which has been made to be part of Russia against its will, by force. The streets in Tbilisi are wide and paved well; the houses – built in an excellent way, the gardens – looked after properly. The author remembers the palace of the Prince Constantine, the museum, the numerous barracks, and later – the markets, and regions populated with people. He says that the beauty and elegance of the women is not faded regardless of the reputation they have (“La Perse la Chaldee et la Susiane par Dieulafoy Mme Jane Dieulafoy”).

Enrico Castelnuovo, an Italian writer (1839 – 1915) in one of his works *Before the Departure (The Diary of Helen)* remembers Tbilisi where the brother of the main character has lived for three years. Here he also talks about the Georgian women “famous for their beauty round the world”. The author informs us that the population of the city is 61,000, that the city is the main trading place between Europe and Persia. It is situated on Mtkvari and has hot sulfur springs. The name of the city – meaning “the city of warm water” – is associated with these springs. Enrico Castelnuovo uses Orsole's writings in his work. The latter has described Tbilisi, the eastern markets, national clothes, shops and the cultural life. Unlike other authors he was not fascinated by the beauty of Georgian women because, as he says: “There is no buoyancy in their beautiful features”.

Amur August Lui Joseph Bartello the same Baron de Bai – a French historian and a public figure (1853-1931), and a great supporter

of the Georgian culture, visited the country several times. He met Ilya Chavchavdze and devoted a book to Tbilisi (“Bai Amur Ogiust Lui Joseph Bertello Baron De “, 1967, p. 55; Panchulidze, 1969).

Turkish Sources

From the mid-sixteenth century. Persia and the Ottoman State divided Georgia by spheres of influence. Western Georgia was usually controlled by the Ottomans, and eastern Georgia - by Persia. Such a division was often on paper.

For a number of reasons Persia failed to gain control over and get into western Georgia. On the contrary. As a result of later treaties it lost and ceded the eastern part of Samtske-Saatabago to Turkey – the areas which befell Turkey before under the Amasia Treaty of 1555. Unlike Persia, Turkey in some cases managed to get into eastern Georgia e.g. in 1578 or in 1723. In such cases Turks strove to establish Turkish administration there. Therefore, Turkish chroniclers paid greater attention to Tbilisi.

A great Turkish historian of the sixteenth century, Mustapha Ali, was the personal secretary of the conqueror of Tbilisi and East Georgia Lala Mustapha Pasha in 1578. Though Mustapha Ali did not take part in east campaigns, he devoted a special work to it *The Book of Conquest*. The book contains notes on Tbilisi “The Tbilisi castle is a big magnificent fortress which is very similar to the great and splendid city of the Arabs – Alepo with the depth of its trenches, the height of the city and its piers. At the same time, since there are River Mtkvari and hot springs there, it also looks like the capital of Hungary Budapest” (Shengelia, Ali Mustapha, 1967, p. 55).

In the work of a Turkish author of the same century Mustafa Selaniki there is a reference to “the Tbilisi fortress built along the river that would make all the rulers of the world envy” (Selaniki & Puturidze, 1960, pp. 263 – 264).

Solak Abu Bakr b. ‘Abd Allah, an Ottoman historian of the sixteenth century, describes Tbilisi: “We went to the famous fortress called Tbilisi. The people of the vilayet are all Georgians. But the cursed Kizilbash Khan - called Dawud Khan - subjugated them. We went there and made a camp near the fortress. We stayed there for about five or six days. The fortress of the city is located in one gorge. The vilayet is moderate in terms of the climate and water. It has seven or eight great ilijes, a round garden. There are also vineyards. There is a big river flowing in the middle of the city. It is called the Mtkvari. In the city, there is a bridge over the river. When the fortress was occupied by the Kizilbash,

merchants loaded with silk coming from Shirwan and Zagem went over the bridge and paid the customs. It traded in yuk akhche per year. This is what the vilayet is like” (Abdulah, 2006, p. 36).

A Turkish author Ibrahim Pečevi has preserve information on the seizure of Tbilisi by Mustapha Lala Pasha and the disposition of its garrisons. Several Turkish authors remembers the seizure of Tbilisi by Sinan Pasha in 1580 and the appointment of a Georgian ruler. One of them is Ibrahim Pečevi, whose description resembles the narration of Mustafa Ali a lot: “There were several suitors of the Beylerbey of Tbilisi. Of all the Georgian Beys, Giorgi Bey was the smartest. He declared loyalty to the former commander. He was appointed as a ruler of the vilayet of Tbilisi and was named Yusuf Pasha” (“Evidence of Ibrahim Pechevi concerning Georgia and Caucasus”. Trans. 1964, p. 61).

A Turkish writer and scholar of the seventeenth century, Katib Čelebi, has preserved notes about Tbilisi. Different works by him contain information about the city. One of such works is a geographical work *Jihan-numa (The Mirror of the Universe)*. According to Katib Čelebi “Tiplis is a castle and a city, situated at longitude 83 and latitude 33, on the River Mtkvari, east of the Georgian mountains. There is a mountain on one side of the city. The city has three entrances. The entrances are opposite one another and River Mtkvari is between these entrances. The castle is built on both sides of a huge cliff covered with plants. The distance in between is very narrow. There start 10 inches in the place of the river bed. In old books the name is called the Kasaba of Georgia that had been conquered by Islamic people before Georgians regained control over it and before it was seized by Muslims again. It is currently under Shirvan rule. There are a lot of baths in the eastern suburb of the town. The old baths with domes were built on pleasant moderately warm water in old times. The water in the baths has the smell of sulfur and is very good for health. Ahmed Amin tells that due to the miracle of creation, if you put ten eggs into the water, nine of them will boil and the tenth egg will disappear” (“Evidence of Katip Chelebi concerning Georgia and Caucasus”, 1978, p. 117-118).

Tbilisi was described by a Turkish traveler of the seventeenth century Ewliya Čelebi. The traveler visited the city in 1646-7. He relates that “On the bank of river Mtkvari there are two fortresses on a steep cliff opposite each other. These fortresses are called Bitlisi-Tbilisi. There is River Mtkvari flowing between them. Since the bridge between the cliffs is big, it is easy to move from one fortress to another. The big fortress is south of River Mtkvari and the small fortress – north of the river. On the bank of the river, on a steep cliff, one can count 6,000 steps around the big fortress built by Bitlisi. Yet, it was built long ago. The height of the wall is 60 inches. The small fortress is built by Yezdigard Shah. The

majority of the population are Sunnis from Ottoman times. They follow the faith of Hanafi and Shafi'i. There is a lot of ulema. They raise wheat, the white and fine Tbilisi bread, red and white peaches. Tbilisi is famous for its cotton wool and the Angora fleece." The traveler remembers the naturally hot waters of Tbilisi, too (Evlia Chelebi, 1971, p. 293-297).

Some Turkish authors tell us of the Turkish seizure of Tbilisi in 1723. One of them is Ćelebi-Zade Isma'il 'Asim Efendi, who held the post of a royal historian in 1723-30. In his work there is a reference to "the vilayet of Tbilisi embroidered with silk". The author relates that based on the Ojaklik Agreement and by means of paying a bribe of 40,000 kurushs - Uzun Mustafa Agha, one of the shameless Aghas of Erzurum, appointed Shah Nawaz (that stands for Bakar) son of Vakhtang, converted to Islam, called Ibrahim as the governor of the city (Shengelia, 1973).

A Turkish author of the eighteenth century, Gurji Zade, informs us of the same fact. In his book devoted to the conquest of East Georgia by Turks in 1723-1724, *The Book of the Tbilisi Conquest*, he regards Tbilisi "a lovely bride engaged with Ottomans", or "an abundant table". Here we can also see the disobedience of Georgians, a permanent fight for the liberation of the city. As the author recounts "the city of Tbilisi was surrounded with the enemies of religion like "an ample table with hungry dogs". The author remembers Vakhtang VI and his son Bakar (Shah Nawaz) as cursed and perfidious (Gurji- Zade, 1975, p. 18-19, 25).

The Turkish historian of the nineteenth century Cevdet -Pasha informs us on the invasion of Agha Mahmud Khan and the capture of Tbilisi (Shengelia, 1967, p. 66).

Russian Sources

A Russian merchant of the seventeenth century Vasili Yakubovich Gagara wrote of the city : there are four fortresses in Tbilisi, and there's a river flowing between them. The river freezes neither in winter nor in summer. He also mentions hot waters "There must be more than 60 hot wells" (Tsintsadze, 1965, p. 13; Polievktov, p. 35. n.d.).

Mayor General of the Russian Army Nikolai Danielovich Yazikov, who visited Georgia in 1770, tells that Tbilisi was quite a populous city and that there is a trade in Asian goods: brocade, taffeta, leather. There were also some goods from Russia. There are a lot of various craftsmen there and separate districts for different crafts. There were "many rich merchants in the city" and the annual rent income of the city mint amounted to 30,000 (Gvritishvili & Meskhia, 1952, p. 167).

Russian colonel Stephan Danilovich Burnashov informs us that in the Tbilisi of the 1880s there were up to 500 shops. He narrates how

Russians took their goods to the markets of India and Persia via Tbilisi and how even more goods were imported from there. The same author states that “the primary striving of Erekle II is the Europeanization of the people” (Burnashov, 1786; Burnashov, 1967, p. 56).

After the annexation of Georgia by Russia in 1801 throughout the nineteenth century and later Georgia and Tbilisi in particular were visited by many Russians for various goals. They left their impressions in a written form. Russian Tsar Nikolay I made Georgia “Southern Siberia” and a place for exile. Prior to the uprising of “Decabrists” A.S. Griboedov, A.A. Shishkov, V. K. Küchelbecker came to Tbilisi. In 1829 A. S. Pushkin arrived in Tbilisi. Later - in 1837 M.Yu. Lermontov visited Kakheti.

“Give Caucasus peace and don’t seek earthly paradise on Euphrat”,- Said A. A. Bestuzhev-Marlinski,, who stated, “I love the evenings and nights of Tbilisi” (Bestuzhev – Marlinskii, 1948, p. 139), while M. Lermontov was writing to his friend Raevski, “If you go to the Caucasus you will return a poet from there” (“Through the Ages”,1983, p. 230).

A famous Russian critic B. Belinski was sure that “The lot fell upon the Caucasus to be a cradle, inspiration and governing of Russian poetic talents” (“Through the Ages”,1983, p. 231).

A. Griboedov served in the office of Commander-in-Chief Ermolov, later in the office of Paskevich. He had close relations with the high society of Tbilisi. He married the daughter of a poet A. Chavchavadze, Nino. He also played an essential role in the foundation of a Russian newspaper *Tiflisskie vedomosti* (1828, 4 July), and in setting up schools and a commercial bank. He attempted to open a Public library. His poem “Woe from wit” was heard first in Tbilisi and in the same city lies his body. A. Griboedov devoted lyrics Tbilisi, his ideas about the future of the city are expressed in his plan for the reconstruction of the city. According to V. N. Grigoriev, “One rarely loves motherland, the way he loved Georgia – so sincerely and ardently” (“Russian writers on Georgia”, 1948, p. 2.). “I am so much used to this place deadly won’t leave it”- writes A. Griboedov about Tbilisi in a letter: “Do hasten to Tbilisi, you can’t believe what a luxury it is”. He describes the city, the way it grows becoming more and more beautiful” (“Russian writers on Georgia”, 1948, p. 71.).

A. Pushkin came to Tbilisi on his own and remembered the days spent there with pleasure. “I don’t remember a day when I was more joyful than now. I see how I am loved, understood and appreciated and how it makes me happy”, writes the great poet (“Russian writers on Georgia”, 1983, p. 15).

According to A. Pushkin “A big part of Tbilisi is built in the Asian style: the houses are near to the ground, the roofs are flat. In the northern part of the city the houses are built in accordance with the European architecture. Close to them there starts a straight square. The market is divided into several rows. The counters are filled with Turkish and Persian goods that are rather cheap. The arms from Tbilisi are expensive in the East” (“Russian writers on Georgia”, 1983, pp. 173-174).

M. Gamazov visited Tbilisi in 1831. He liked the city, which evoked his interest in the East in general. The poet devoted some verses to the city. In these verses he mentions Navtlughi, Avlabari, Mtkvari, the sulfur baths (Bogomolov, 1984, pp. 22-37).

A Russian officer Fiodor Fiodorovich Bartolomey who traveled to Georgia in the 1830s provides us with important information on Tbilisi (Tedorovich, 1967, p. 56; Polievktov, p. 8. n.d.).

From 1846 till 1918 newspaper *Kavkaz* was being published in Tbilisi. The newspaper contained interesting information about the Caucasus and Georgia. I. Polonski, V. Sologub, M. Brosset and others cooperated with the newspaper. One of the editors O. Konstantinov vividly describes the city in his *Essays of Tbilisi* and Tbilisi news. He mentions Maydan, Avlabari and Sololaki, gives information about charcoal dealers, dressmakers, hair dressers, petty tradesmen, describes markets, squares, traditions (“Russian writers on Georgia”, 1983, pp. 29-31).

A famous writer V. Sologub (1813-1882), who had close relations with A. Pushkin, Iu. Lermontov and who visited Georgia in 1850, draws attention to Tbilisi, among the other sites. He liked the theatre, but notes that it would be better if more Georgian plays were performed there. He sees the future of the city in light colors (Bogomolov, 1984, pp. 77-92).

Writer E.A. Verderevski also lived in Tbilisi. He came there in the 1750s and described the city: narrow streets, market, Avlabari, Peski etc. in his works (Bogomolov & Khutsishvili, 1983, pp. 70-72).

In 1844-45 writer A.S. Afanasiev-Chuzhbinski was greatly impressed by Tbilisi with its ethnic diversity. He described the life and occupation of common people, sulfur baths, Georgian songs. In his opinion, Tbilisi could become a significant center of science, culture and trade. It had to be covered with a net of the High schools, where representatives of different nations, and among them highlanders would study (Bogomolov, 1984, pp. 58-98).

In 1852 a famous writer Lev Tolstoy came to Tbilisi. He liked the city so much that decided to stay there for service: “Tbilisi is a civilized city, it follows Petersburg, at times successfully. The society here is

selected and big. There is a Russian theatre here, Italian Opera, which I attend as I can afford with my humble opportunities,” - said the writer. He also wrote the following about the city: “I think there happened a great moral change in me I became better here” (Russian writers on Georgia, p. 49. n.d.).

A Russian journalist, Dunkel Welling, who was in Tbilisi in 1860 confirms the notes. He presents the picture of Tbilisi as of a European developed city with 212 streets and 10 squares. He states that “The bridges, streets and squares of Tbilisi are illuminated with 302 lamps that have a bright light. Gas is obtained as a result of liquid burning” (Polievktov & Natadze, 1929, Dunkel-Veling, 1967, pp. 95-102).

A Russian statesman Nikolai Alexander Pavlov, who served as Senator and Head of the Main Office of the Caucasus Directorate in Tbilisi from 1863, provides some interesting notes about Tbilisi. He tells us that in Tbilisi the streets of the right embankment of Mtkvari started to be paved in 1867. The process was finished that year. One thousand one hundred and fifty two private houses were built in Tbilisi in 1862-72. The population of Tbilisi was 81,181 in 1872. The author also provides information on the educational institutions of Tbilisi (Nikolai, 1967, p. 62).

In the 1880s, G.I Uspenski, A. N. Ostrovski, A. P. Chekhov, P. I. Chaikovski, M. G. Savina and others paid a visit to Tbilisi. Here, in the newspaper *Kavkaz* the first work of M. Gorki “Makar Chudra” was published. The writer was always grateful: “I can think that just the great nature of the country and romantic softness of the people, these two forces, gave me an impulse, which made a vagrant into a writer” later remembered M. Gorki (Russian Writers on Georgia, p. 88). He writes about Tbilisi: “I never forget that in this city I made the first steps on the road on which I have already been pacing for forty years”.

A great Russian singer F. I Shaliapin received his first singing lessons and first stepped onto the stage in Tbilisi.

P. Chaikovski was quite amazed by Tbilisi which he visited five times. By its location Tbilisi reminded him of the Italian cities Genoa, Venice, Florence. “It is quite a European city, very well organized, clean, with good climate, rich shops, and a perfect opera”. The composer talks about an old and modern city with European and Asian parts. He thinks that the combination of Asia and Europe determines the attractiveness of the city. He was very much surprised by high music culture. He didn’t expect that his creation was so well known and performed. “I can consider the month spent in Tbilisi as the best in my life. I like Tbilisi with its splendid southern climate and extreme originality. The local musicians are so attentive and respectful to me that it can’t leave me indifferent”. He repeats that he likes the city very much many times.

“The main streets are vivid, the shops rich. All smells of Europe” (Aslanishvili, 1940, p.7).

In 1923 Tbilisi was visited by a famous Russian writer, K. T. Paustovski. The writer notes that Tbilisi is a city with rich traditions, but it doesn't await the return to the past, being quite modern. The author compares the rich and diverse market of the city to the Persian carpet, talks about clean offices. The author says “There is a restrained vivacity, there are more essential and genuine deals”. Having visited the tomb of Griboedov the writer once again thought, “How old this earth is, covered with the millennium dust.” He met Titsian Tabidze, Lado Gudriashvili, and Nikoloz Shengelia, and reflected that if he were younger he could stay in the city for ever (Jincharadze, 1970, p. 4-5).

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The first Sovereign of Achaemenids, Cyrus, and “Life of Kartli’s” Nimrod

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Abstract

As a result of detailed analysis of sources, we came to the conclusion that the well-known fighting in the ancient world between Cyrus, the first ruler of Achaemenid Persia and the Scythian tribes of Massagatae – which resulted with the death of the former - took place in North Adarbadagan, somewhere between the Svani and Urmia lakes and not in Middle Asia, in the vicinity of River Amu Darya as it was universally accepted in Historiography. The murder of Cyrus was among the most uncommon phenomena for the ancient world. The deep resonance that it brought about among middle eastern people, was therefore only natural. Hence, the event was disseminated among the people in many different versions as early as in the epoch of Herodotus. A version of the fight in question is preserved in Georgian Chronicles in the form of a fight between the Thargoids with the Nimrod, and also in the Old Armenian Historiography in the form of a fight with Thargoids’ (Hyrcanians) Bell.

აქემენიანთა პირველი მბრძანებელი კიროსი და „ქართლის ცხოვრების“ ნებროთი

მანანა სანაძე
საქართველოს უნივერსიტეტი

წყაროების დეტალური ანალიზის შედეგად, მიყვებით დასკვნამდე, რომ ძველ მსოფლიოში ცნობილ ბრძოლას მასაგეტების სკვითურ ტომებსა და აქემენიანთა სპარსეთის პირველ მბრძანებელ კიროსს შორის, რომელიც კიროსის დაღუპვით დამთავრდა, ადგილი ჰქონდა არა შუა აზიაში, მდ. ამუ-დარიის მიდამოებში, როგორც ეს აქამდე ისტორიოგრაფიაში საყოველთაოდ იყო აღიარებული, არამედ ჩრდილოეთ ადარბადაგანში, სადღაც სევანისა და ურმიის ტბებს შორის. კიროსის მოკვლა, ძველი მსოფლიოსათვის სრულიად არაორდინალური მოვლენების რიგს განეკუთვნებოდა და მას, ბუნებრივია, წინა აზიის ხალხებში დიდი გამოხმაურება მოჰყვა. ამიტომ ეს ამბავი მრავალრიცხოვანი ვერსიის სახით იყო შემორჩენილი ჯერ კიდევ ჰეროდოტეს ხანაში. აღნიშნული ბრძოლის თავისებური ვერსია შემოგვინახა „ქართლის ცხოვრებამ“ თარგამოსიანთა ნებროთთან ბრძოლისა და ძველმა სომხურმა ისტორიოგრაფიამ თარგამოსიანთა (ჰაიკიანთა) ბელთან ბრძოლის სახით.

On the basis of historiography, Cyrus (The first shah of Achaemenids) died in battle with the Scythian tribes, Massagetae (Sakas) in the Middle Asia, on the banks of the river Amu-Darya. The earliest historian from Antic Periods, Herodotus, writes about this battle. According to the analysis of the information provided by Herodotus we came to a very interesting conclusion.

When Cyrus had achieved the conquest of the Babylonians, he conceived the desire of bringing the Massagetae under his dominion. Now the Massagetae are said to be a great and warlike nation, dwelling eastward, toward the rising of the sun, beyond the river Araxes, and opposite the Issedonians. By many they are regarded as a Scythian race (Herodotus, 1975, I. 201).

On the west then, as I have said, the Caspian Sea is bounded by the range of Caucasus. On the east it is followed by a vast plain, stretching out interminably before the eye, the greater portion of which is possessed by those Massagetae, against whom Cyrus was now so anxious to make an expedition (Herodotus, 1975, I. 204).

According to the sources, under the territory names of East of the Caspian Sea is considered Kazakhstan and Turkmenistan, if so than the saying "Beyond the Araxes" is the argument that gives opportunity think that the river Araxes's name is the same as Amu-darya, and people living beyond this territory, Massagetae, could have been located on the territory of Amu-darya, or Sirdaria. This standpoint, mentioned in Herodotus's composition, was the main source and gave the opportunity to think that Cyrus had the fatal war and the last battle with Massagatae near the bank of the river Amu-Darya (Oxsos).

This standpoint was enhanced by the fact that in the periods of Elinism and Roman, Herodotus and Cyrus, Massagatae and other Scythian tribes were mostly inhabited (Trials, Sakas...) in the south Caucasus. Later in the period of the Alexander of Macedon the Scythian tribes were more spread in the north of the Caucasus rather than in the south part of the Caucasus. But it is worth mentioning that in the late antic era (I-III DC) Massagatae has vast kingdom on the west of the Caspian Sea (the territory of Azerbaijan and Dagestan). Several sources prove this fact; one of the sources is Armenian source ("Armenian and Antique Sources about Massagatae")

To discover where did those Massagatae live and who had the battle with Cyrus, we should analyze the information provided by Herodotus's geography.

First of all, we should define what is Herodotus's understanding of the east and west. At that time Herodotus and other historians

considered that land was surrounded by the ocean. Conventionally the ocean was divided into two, North (The Atlantic Ocean) and the South Seas. The South Sea was also called the “Purple Sea.” The “Purple Sea” is considered to be the Indian Ocean. The Arabian Sea, together with the Persian Gulf and the Red Sea are the bays of Indian Ocean. According to Herodotus’s standpoint the Persian Gulf is the Purple Sea, part of the ocean that surrounds the land. “The city is divided into two portions by the river which runs through the midst of it. This river is the Euphrates, a broad, deep, swift stream, which rises in Armenia, and empties itself into the Erythraean Sea” (Herodotus, I. 180).

The northern sea was running through the Heracles stele and was forming the Greek Sea, Mediterranean Sea with the bays and seas: Propontida, Euxine (The Black Sea) and Maeotis Lake (Azov Sea).”The Persians inhabit a country upon the southern or Erythraean sea; above them, to the north, are the Medes; beyond the Medes, the Sasprians; beyond them, the Colchians, reaching to the northern sea, into which the Phasis empties itself. These four nations fill the whole space from one sea to the other” (Herodotus, IV. 37).

The Black Sea was called the northern sea not because of the geographic location but because of the fact that it was the part of the northern sea, part of the ocean. According to this standpoint the northern seas are the Black Sea and the Mediterranean Sea, the Erythraean Sea is the part of The Southern Sea, as it is part of the Persian Gulf.

Herodotus identifies the Caspian Sea with the lake, more precisely Herodotus thought that the Caspian Sea is surrounded by the land rather than it is the part of the northern sea. Later, Strabo was of the same idea about the Caspian Sea (Strabo), but he had vague impression about the length of the lake.

“...The sea frequented by the Greeks, that beyond the Pillars of Hercules, which is called the Atlantic, and also the Erythraean, are all one and the same sea. But the Caspian is a distinct sea, lying by itself, in length fifteen days’ voyage with a row-boat, in breadth, at the broadest part, eight days’ voyage” (Herodotus, I. 202).

It is absolutely clear that, by Herodotus’s impression the Caspian Sea’s length is less than double length of the widest part of it. Today the length of the Caspian Sea is 1200 km. It is quite possible that at the time of Herodotus the length of the sea was longer that it is now. The width of the sea is 320 km. The oar boat passed nearly 30-40 km, in antique era. According to the speed, 8 days are really need-

ed to cover and pass 320 km. 600kl was possible to pass in 15 days. This detailed information is the argument that at the times of Herodotus the Caspian Sea was of half length than it is today. In Herodotus impression the Caspian Sea was bordered by the Caucasus Range, near the Derbedi.

Let's see what is the understanding of Herodotus from the view point of History and Geography. He admits: "... Beyond the tract occupied by the Persians, Medes, Saspirians, and Colchians, towards the east and the region of the sunrise, Asia is bounded on the south by the Erythraean Sea, and on the north by the Caspian and the river Araxes, which flows towards the rising sun. Till you reach India the country is peopled; but further east it is void of inhabitants, and no one can say what sort of region it is. Such then is the shape, and such the size of Asia" (Herodotus, IV. 40).

This is the geographic impression of the person who had an absolutely different point of view in understanding of north and correspondingly east and west towards the Caspian Sea. Herodotus considers the Caspian Sea as the north that borders the Caucasus range and is inhabited by the Colchians. Herodotus imagines the Persian Gulf on the east edge.

This standpoint gives opportunity imagine the location of the Massagatae inhabitants on the territory beyond the river Araxes: The south-west of the historic Athropatakan.

It is not of less importance to determine where Cyrus held the war against Massagatae and what the river is that is meant under the river Araxes. This river is mentioned in the following context with Herodotus:

"... Now the Massagetæ are said to be a great and warlike nation, dwelling eastward, toward the rising of the sun, beyond the river Araxes, and opposite the Issedonians. By many they are regarded as a Scythian race."

"...It has forty mouths, whereof all, except one, end in bogs and swamps. These bogs and swamps are said to be inhabited by a race of men who feed on raw fish, and clothe themselves with the skins of seals. The other mouth of the river flows with a clear course into the Caspian Sea" (Herodotus, I. 202).

"... Cyrus, therefore, finding that he did not advance his designs by this deceit, marched towards the Araxes, and openly displaying his hostile intentions; set to work to construct a bridge on which his army might cross the river, and began building towers upon the boats which were to be used in the passage" (Herodotus, I. 205).

“The first night after the passage, as he slept in the enemy’s country, a vision appeared to him. “

“Meanwhile Cyrus, having advanced a day’s march from the river, did as Croesus had advised him, and, leaving the worthless portion of his army in the camp, drew off with his good troops towards the river” (Herodotus, I. 211; I. 209).

“Massagatae... They sow no grain, but live on their herds, and on fish, of which there is great plenty in the Araxes” (Herodotus, I. 216).

Angry Cambyses, Cyrus’s son, says to Croesus: “Dost thou presume to offer me advice? Right well thou ruledst thy own country when thou wert a king, and right sage advice thou gavest my father Cyrus, bidding him cross the Araxes and fight the Massagetae in their own land, when they were willing to have passed over into ours” (Herodotus, III. 36).

“... the river Araxes, which flows towards the rising sun” (Herodotus, IV. 40).

“It is that the wandering Scythians once dwelt in Asia, and there warred with the Massagetae, but with ill success; they therefore quitted their homes, crossed the Araxes, and entered the land of Cimmeria” (Herodotus, IV. 11).

“... Cimmerians kept the line which led along the sea-shore, but the Scyths in their pursuit held the Caucasus upon their right, thus proceeding inland, and falling upon Media” (Herodotus, IV 12).

Tinatini Kaukchishvili, who translated Herodotus texts, identifies Araxes with Amu-Darya and Sirdaria. She agrees with the probability that the river is modern Araxes. “The river Araxes, like the Gyndes, which Cyrus dispersed into three hundred and sixty channels, has its source in the country of the Matienians. It has forty mouths, whereof all, except one, end in bogs and swamps. These bogs and swamps are said to be inhabited by a race of men who feed on raw fish, and clothe themselves with the skins of seals. The other mouth of the river flows with a clear course into the Caspian Sea. “(I. 202), as for the last two abstracts (IV. 11; IV 12), gives us opportunity think that the river Araxes is the same as Vilga” (Herodotus, II, 1976, p. 591).

Very important fact that should not be left without notice is that Herodotus did not know about the existence of the river Volga. According to the texts (IV. 11; IV 12), if Scythians have moved to the north of the Caucasus, passing the Caspian Sea and Volga, the Range of the Caucasus should have been on the right rather than on the left.

Seems Scythians passed this territory of south Caucasus through the road of Darubandi. They passed Araxes and went to the direction of Colkhети. The Cimmerians attacked by the Scythians ran to both direction of the sea. What makes us think so? First of all, if we understand the text in the same way as stated above then everything corresponds to the facts: If Scythians would have passed the river Araxes and went to the direction of the Black Sea, then the Caucasus Range should have been on the right, and if the Scythians moved to the north of Caucasus then the Range was expected to be on the left.

As it is cited (IV. 11; IV 12) Araxes can be identified with the modern Araxes only. Herodotus texts can serve for more evidences. The author does not know whether that Araxes is larger or smaller than Astros (Dunai), that there are islands in the river, that its beginning is in the Matienians country. This is the beginning of the Tigris's third left source Gyndes. Araxes has 40 sources. All the sources disappear in the bogs except one that flows to the Caspian Sea. Araxes flows to the direction of east. Geographic notes make it clear that Herodotus's River Araxes is located between Caspian Sea and Persian Gulf.

First of all it has to be determined where is the Matienians country? Herodotus's notifications should be divided into 2 groups: The first group identifies it with the country located on the east of Cappadocia.

“The Cappadocians are known to the Greeks by the name of Syrians. Before the rise of the Persian power, they had been subject to the Medes; but at the present time they were within the empire of Cyrus, for the boundary between the Median and the Lydian empires was the river Halys. This stream, which rises in the mountain country of Armenia, runs first through Cilicia; afterwards it flows for a while with the Matieni on the right, and the Phrygians on the left: then, when they are passed, it proceeds with a northern course, separating the Cappadocian Syrians from the Paphlagonians, who occupy the left bank, thus forming the boundary of almost the whole of Lower Asia, from the sea opposite Cyprus to the Euxine. Just there is the neck of the peninsula, a journey of five days across for an active walker” (Herodotus, I. 72).

“The Matienians, Saspeires, and Alarodians were rated to pay two hundred talents. This was the eighteenth satrapy” (Herodotus, III. 94).

“The Paphlagonians went to the war with plaited helmets upon their heads, and carrying small shields and spears of no great size. They had also javelins and daggers, and wore on their feet the buskin of their country, which reached half way up the shank. In the same fashion were equipped the Ligyans, the Matienians, the Mariandynians, and the Syrians (or Cappadocians, as they are called by the Persians). The Paphlagonians and Matienians were under the command of Dotus the son of Megasidrus; while the Mariandynians, the Ligyans, and the Syrians had for leader Gobryas, the son of Darius and Artystone” (Herodotus, VII. 72).

According to the second group of the notifications Matienians country is around Matienians country. It is located in the historic Athropatakan the south of Urmia, Gygaea Lake: “Cyrus on his way to Babylon came to the banks of the Gyndes, a stream which, rising in the Matienian mountains, runs through the country of the Dardanians, and empties itself into the river Tigris” (Herodotus, I. 189).

“The river Araxes, like the Gyndes, which Cyrus dispersed into three hundred and sixty channels, has its source in the country of the Matienians. It has forty mouths, whereof all, except one, end in bogs and swamps. These bogs and swamps are said to be inhabited by a race of men who feed on raw fish, and clothe themselves with the skins of seals. The other mouth of the river flows with a clear course into the Caspian Sea” (Herodotus, I. 202).

“Next to these Ionians” (here he pointed with his finger to the map of the world which was engraved upon the tablet that he had brought with him) “these Lydians dwell; their soil is fertile, and few people are so rich in silver. Next to them,” he continued, “come these Phrygians, who have more flocks and herds than any race that I know, and more plentiful harvests. On them border the Cappadocians, whom we Greeks know by the name of Syrians: they are neighbors to the Cilicians, who extend all the way to this sea, where Cyprus (the island which you see here) lies. The Cilicians pay the king a yearly tribute of five hundred talents. Next to them come the Armenians, who live here - they too have numerous flocks and herds. After them come the Matieni, inhabiting this country; then Cissia, this province, where you see the river Choaspes marked, and likewise the town Susa upon its banks, where the Great King holds his court, and where the treasuries are in which his wealth is stored (Herodotus, V. 49).

”The boundary between Cilicia and Armenia is the river Euphrates, which it is necessary to cross in boats. In Armenia the resting-places are 15 in number, and the distance is 56 1/2 parasangs.

There is one place where a guard is posted. Four large streams intersect this district, all of which have to be crossed by means of boats. The first of these is the Tigris; the second and the third have both of them the same name, though they are not only different rivers, but do not even run from the same place. For the one which I have called the first of the two has its source in Armenia, while the other flows afterwards out of the country of the Matienians. The fourth of the streams is called the Gyndes, and this is the river which Cyrus dispersed by digging for it three hundred and sixty channels. Leaving Armenia and entering the Matienian country, you have four stations; these passed you find yourself in Cissia, where eleven stations and 42 1/2 parasangs bring you to another navigable stream, the Choaspes, on the banks of which the city of Susa is built. Thus the entire number of the stations is raised to one hundred and eleven; and so many are in fact the resting-places that one finds between Sardis and Susa" (Herodotus, V. 52).

These two locations provided by Herodotus, the Matienias country indicate that there are different sources. According to this might be determined the mistake concerning with the Araxes Source: In one of the sources it was said that Matienians country is located on the east of Cappadocia. It was possible to say that this country was the source of the river Araxes. If this location of Matienians is correct then this information corresponds with the text, too.

The second source was discussing different location. According to this source it was located on the north of Susa and was the third source, Gynea of the river Tigris .

Herodotus united these two pieces of information and concluded that Araxes and Gyndes flow from Matienians country. This standpoint lacks evidence, and can not be taken into consideration. According to it Matiani is located either on the east of Cappadocia, and the river Araxes flows from the north side of it, or this country is on the north of Susa, and the river Tigris's third source Gyndis flows from it.

Despite of providing several standpoints the river Araxes mentioned with Herodotus is the same as Araxes today. But Herodotus does not know about the river Mtkvari, nor does he identify it as one of the sources of Araxes (It is a typical mistake of the ancient authors); correspondingly, the Caspian Sea is considered one of the sources of the river Araxes. It is worth mentioning that Araxes should not be identified as Amu-Darya. There are several reasons that they are not the same rivers. First of all if we think of them as one and the same then the stream of the river should be directed to the west and the

north but not to the east. Herodotus provides with corresponding information, though this fact stays outside of his notice.

The Caspian Sea is the north and the Persian Gulf is the east in Herodotus's understanding. But the texts of the author from whom Herodotus took the information support the standpoint that the Caspian Sea is in the east and flows to the east of the river Araxes.

According to the research provided by Herodotus the famous battle between Massagataea and Cyrus, that ended with the death of the great king Cyrus, was held in Adarbadagan. The death of Cyrus was the cause of great resonance in society. This story was written in several versions even in the period of Herodotus. He says:

Of the many different accounts which are given of the death of Cyrus, this which I have followed appears to me most worthy of credit (Herodotus, I. 214). The standpoint about the battle of Scythians with Cyrus near the Araxes of Armenia is shared by Strabo, too. He follows the description of Massagataea's life-style but also provides the information about Sakas. The Sacae, however, made raids like those of Cimmerians and Trere, some into regions close to their own country, others into regions farther away. For instance, they occupied Bactriana, and acquired possession of the best land in Armenia, which they left named after themselves, Sacasene; and they advanced as far as the country of the Cappadocians, particularly those situated close to the Euxine, who are now called the Pontici.

It is very interesting that Strabo criticizes Herodotus concerning the source of Araxes: "It is thought that the *Araxes* was given the same name as the *Peneius* by Armenus and his followers because of its similarity to that river, for that river too, they say, was called *Araxes* because of the fact that it "cleft"-*Ossa* from *Olympus*, the cleft called *Tempe*. And it is said that in ancient times the *Araxes* in *Armenia*, after descending from the mountains, spread out and formed a sea in the plains below, since it had no outlet, but that *Jason*, to make it like *Tempe*, made the cleft through which the water now precipitates-itself into the *Caspian Sea*, and that in consequence of this the Araxene Plain, through which the river flows to its precipitate-descent, was relieved of the sea. Now this account of the Araxes contains some plausibility, but that of Herodotus not at all; for he says that after flowing out of the country of the Matieni it splits into forty rivers and separates the Scythians from the Bactrians. Callisthenes, also, follows Herodotus (Strabo, XI, 14.13).

While discussing the source of Araxes, it was identified that the mistake is caused by Herodotus's standpoint about different locations of Matienians country. As for the Strabo's viewpoint that "Araxes splits Scythians and Bactrianians" does not correspond to the writings of Herodotus as far as he had not written anything like that in his works. It is possible that Callisthenes says that but not Herodotus. Strabo indicates one location of Matienians country. (on the north of Midia, south of Atropacians', and on the west of Armenia on the south of Gygaea Lake). But it is possible that Strabo knows another Matieni, that he calls "Midia Matieni", That claim of Strabo should have been absolutely incorrect if he did not recognize another Matieni.

We have to point out that Strabo is also acquainted with the second Araxes that flows from the Zagros mountain-range as well as River Cyrus (XV, 3,6). Unlike this Araxes, he refers to the Araxes of the Caucasus as the "Araxes of Armenia". Strabo is positive that Herodotus implies "the Araxes of Armenia" when he refers to the Araxes. That is why he criticizes: "It has no source in the country of Matieni. The second Aras, which starts from the Zagros Mountains, flows along the country of the Strabo chronicles and, as Strabo points it out - had Herodotus implied this Aras, there would have been nothing to criticize regarding the mouth. When Strabo speaks about the Massagatae of Middle East he never fails to mention River Oxos (s) (Amu Darya) or Iaxarte (Syr Darya)."

Despite all these, Strabo never criticizes Herodotus on the issue of the Cyros and the localization of the Massagatae War and never does he state that the war in question took place across Oxos and not Aras. Strabo never blames Herodotus for mixing the Araxes and the Oxos. Furthermore, whatever Herodotus relates in the Caucasus, i.e., about the inhabitants of the Caucasus Range, is narrated by Strabo in regard to the Masagetes. The latter believes that the information Herodotus also "refers to the Massagatae of the Caucasus".

Herodotus's relates: Along its western shore runs the chain of the Caucasus, the most extensive and loftiest of all mountain-ranges. Many and various are the tribes by which it is inhabited, most of whom live entirely on the wild fruits of the forest. In these forests certain trees are said to grow, from the leaves of which, pounded and mixed with water, the inhabitants make a dye, wherewith they paint upon their clothes the figures of animals; and the figures so impressed never wash out, but last as though they had been woven into the cloth from the first, and wear as long as the garment. (Herodotus, I. 203).

It is obvious that Herodotus was not familiar with “the Caucasus of India”. This term, as it’s widely recognized, came into use after Alexander the Macedonian’s campaign. Thus, Strabo, too uses the term Caucasus to refer to modern Caucasus. It is clear from the context that he implies this region.

Strabo conveys the same information in the following way: “...some of them inhabit mountains, some plains, others marshes which are formed by the rivers, and others the islands in the marshes. But the country is inundated most of all, they say, by the Araxes River, which splits into numerous branches and empties by its other mouths into the other sea on the north, though by one single mouth it reaches the Hyrcanian Gulf. They regard Heli alone as god, and to him they sacrifice horses. Each man marries only one wife, but they use also the wives of others; not in secret, however, for the man who is to have intercourse with the wife of another hangs up his quiver on the wagon and has intercourse with her openly. And they consider it the best kind of death when they are old to be chopped up with the flesh of cattle and eaten mixed up with that flesh. But those who die of disease are cast out as impious and worthy only to be eaten by wild beasts. They are good horsemen and foot-soldiers; they use bows, short swords, breastplates, and sagares made of brass; and in their battles they wear headbands and belts made of gold. And their horses have bits and girths made of gold. Silver is not found in their country, and only a little iron, but brass and gold in abundance” (XI. 8. 6-7).

In general terms, the text in question is entirely (XI. 8. 6-7) taken from Herodotus and it is clear that Strabo agrees with Herodotus on Cyrus’s defeat with the Massagatae, on “the Aras of Armenia” and that the fighting with the Massagatae took place in South Caucasus or North Azerbaijan.

We believe that the old Armenian and Georgian writings also give us some information on the fight of Cyrus with the Scythes.

The research of the ancient Georgian history (VIII BC – IV AD) preserved in “Kartlis Tskhovreba” revealed that the arrival and settling of Thargamos and his sons in the Caucasus is far from being an attempt to analyze and place the formation of Georgian, Armenian and other Caucasian peoples in Biblical frames. Rather, this is a mythicized version of the actual Great Migration of People in the first half of the VI c. BC that was led by the Scythian tribes (“households”) ousted by the Media’s King Cyaxares (Sanadze, 2000, pp. 30-47; Alasania, 2000, pp. 18-23; Sanadze, 2002, pp. 23-52).

There are different versions of this historic fact: The return of Azo together with the Georgians, removal from the Babylonia of

Haiku and settlement on the historic territory of Armenia (Khorenatsi, 1984, pp. 70-72). The story of Constantine Porfirogenet about the removal of Iberians from Jerusalem and their return on their native land, they were headed by David and Spsndiat Rvali (Porpirogrneti); “Moqcevai Cartlisai” and the story presented there, “Exiled by Caledonians”, Information presented from the periods of “Thargoids” about “Hurians exiled by Nabuqodonosor”, or “Turkishes exiled by Percians”, Old Greeks sayings about “Resettlement of Iberians by Nabuqodonosor” to the nearby territory of Ponto.

The return of the Scythian tribes in the I half of the VI century BC, who passed the territory of Georgia through the Front Asia in the VIII century BC, was so much unexpected for the residents of this territory that there are several versions of this fact in the history.

The fact that Scythians settled on the territory of Georgia is supported by the results of the archeological investigations. But according to the materials provided by the history none of the sources are saying that they were the residents of Georgia for a long time. It was only mentioned that the Scythians had passed the territory of Georgia.

It is worth mentioning that there existed the region named Sak-as(sh)ene in the antic period. It is considered that this territory today is the territory of Azerbaijan on the north-east of Sevani Lake. This name had been mentioned by Strabo, he considers that it is in connection with the Sakas tribes, who are of Scythian origin.

As it was mentioned above, the kingdom of Massagetea was located in Azerbaijan in I-III AD. It should be supposed that if the residents give name to the territory than they are expected to believing there for a long time.

One part of the scientists thinks that the kingdom of Massagetea was on the territory of Georgia, Albania, and north-east of Armenia (Historic Maps, 1961, p. 102). Kovalevskaja made a very interesting conclusion on the bases of “Chronicles of Georgia”. She thinks that the Scythians lived in south Caucasus for a long time, but also created a very large coalition with the local residents against the war with Persians (Kovalenskaia, 1975, p. 64).

According to the “Chronicles of Georgia” Thargoids, Togorma House, struggled against Nimrod. Under the Thargoids is meant the Scythian tribes mostly settled in south Caucasus. The Nimrod itself is identified with Persian world:

The “Nimrod Book” is mentioned as “Avesta” in the Chronicles of Georgia. But in the context of Persian Dynasty the meaning of the “Nebrotians” could be explained more precisely: Based on the text of

“Chronicles of Georgia” Nimrodians Dynasty corresponds with the names of Achaemenids, Arshakians of Partia, and Khoisans.

If we proceed the research we will come to a very interesting conclusion. The first that Nimrod is Achaemenian, the second that it is the “First kingdom of the country”. According to this, Cyrus is the first king as far as he is the sovereign of Achaemenids, and he is the first who created the empire of the world.

Correspondingly the battle of the 8 brothers of Targamoids, Togorma House, half nomadic civilization battle was held between Scythians and Cyrus. Cyrus, Nimrod was defeated in this battle and killed.

Let’s compare and analyze the battle between Cyrus and Scythians.

The Battle is divided into 3 parts on the basis of Herodotus sayings:

1. Cyrus sends the powerful army against the Scythians. The possible results of this attack are not clear for the Scythians as far as they are not informed about it. Though Scythians defeated Cyrus’s army;
2. Later the Scythians celebrating their success are attacked by Cyrus, this attack was not so much successful for the Scythians as the previous one;
3. The Scythians mobilized their forces and moved against Persians. The battle finished with the defeat of Persians and Cyrus’s death. The “Georgian Chronicle” identify 2 culmination moments in this battle: The defeat of 60 giants sent by the Nimrod by the Caucasus coalition army (1st step) and finally the winning over the Nimrod and his death (3rd step). The second step is omitted because it is less important in comparison with the final success. The most noticeable was the cruelty of the war itself. Even after the century Herodotus evaluates:

“Of all the combats in which the barbarians have engaged among themselves, I reckon this to have been the fiercest. The following, as I understand, was the manner of it:- First, the two armies stood apart and shot their arrows at each other; then, when their quivers were empty, they closed and fought hand-to-hand with lances and daggers; and thus they continued fighting for a length of time, neither choosing to give ground. At length the Massagetae prevailed. The greater part of the army of the Persians was destroyed and Cyrus himself fell, after reigning nine and twenty years” (Herodotus, I. 214).

The Chronicles of Georgia describes this battle as one of the most cruel battles. The text says that the dust spread by the march of the army was thick as clouds; the luster of the Armours was like the luster of the sky; their voice was like the voice of thunder; the num-

ber of arrows thrown was like the number of the hail (“Life of Qartli/Georgia”, p. 6-7).

The same fact is describes as follows by Armenian Histirian-Movse says that when the heroes attacked each other from both sides, the ground was shaking. The giants feared fighters who attack furiously. Not a few giants were killed by the swords, laying on the ground, but the war was to advantage of none of them. The giant king was surprised of such strength of the fighters. And gave up. He decided to mobilize forces in the nearby territory of the mountain and then *renew the attack. The sagittarius Haik discovered that it was unavoidable to have another attack and decided to kill the King to end this battle at last. The king was shoot in the heart. As the army of the king saw the bravery of Haik left the battle field (Khorenatsi, p.71). He uses the term Giant Beli* but he identifies that, it is the same as Nimrod. Several versions of stories are told about Beli, but he thinks that Cyrus and Beli are the same as Nimrod. The Egyptians name Hephaestos, Areganc, and Cronos, who are Kabi, Kushi, and Nimrod (Khorenatsi, p.71).

According to the sources we came to conclusion that the battle described in the “Georgian Chronicles”, by Armenian historian, between Cyrus and Scythians ended with the defeat of Cyrus. Each of these stories is the story about legendary story about the death of Cyrus.

The provided interpretation of the fact gives opportunity to look at the issue from the other side, and makes clear the details of the oldest history of South Caucasus, and clearly shows all the efforts Scythians and South Caucasus people (Georgians, Armenians, Albanians) made against the Persian power and strength in epochal battles.

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Precious metal revetments on Georgian medieval painted icons: some observations on a devotional practice *

Nino Chichinadze

Abstract

The embellishment of sacred images with precious metal was a widespread religious practice throughout the Byzantine world over many centuries. The cladding of Christian images in precious metal has long been an act of piety on the part of the faithful, representing their gratitude to their heavenly protectors for performed assistance. Georgian medieval icons encased in revetments of precious metal that carry their donors' supplicatory inscriptions, throw additional light on the ways in which such icons were used and venerated.

“წმინდა სახეთა თაყვანისცემის პრაქტიკიდან: შუა საუკუნეების ქართულ ფერწერულ ხატთა ძვირფასი ლითონის შესამოსელები
ნინო ჭიჭინაძე

ქრისტიანულ წმინდა სახეთა ძვირფასი ლითონით მოჭედვა-შემკობას მრავალსაუკუნოანი ისტორია აქვს. ფერწერულ სახეთა ჭედურ შესამოსელს მრავალგვარი პრაქტიკული, მხატვრულ-ესთეტიკური და სიმბოლურ-თეოლოგიური დატვირთვა ენიჭება. ჭედურობა ხატის ღვთისმეტყველების სიმბოლური გააზრების განუყოფელი ნაწილია, რომელიც ფერწერასთან ერთად ერთ, მთლიან ანსამბლს ქმნის. წმინდა სახეთა ჭედური და ფერწერული ნაწილების ურთიერთმიმართებასთან დაკავშირებით გასათვალისწინებელია იდეური, საკრალური და მხატვრული ასპექტების ერთიანობა. წმინდა სახეთა ძვირფასი ლითონით შემკობის ძირები საღვთო წერილსა და ხალხურ ღვთისმოსაობაში მოიძიება. ძვირფას ლითონთა შუქმფენობის, ბრწყინვალებისა და ელვარების გამო მათ სხვადასხვა ხალხთა კულტურაში საკრალური მნიშვნელობა ენიჭებოდა. ქრისტიანულ გნოსეოლოგიაში ოქროს გამორჩეული მნიშვნელობა აქვს და სინათლის, ღვთაებრივი ნათლის სიმბოლოდ წარმოგვიდგება. მეტაფორული გააზრებით ოქრო ნათლის “ხატია”, ხოლო ნათელი უფლის “ხატია”.

ქრისტიანულ პრაქტიკაში ფერწერული სახეების ჭედურობით შემოსვა ღვთისმოსაობის ერთ-ერთ გამოვლინებას წარმოადგენს. ჭედურშესამოსლიანი ფერწერული ხატები, როგორც ამას მათი წარწერები მოწმობს, უმეტესწილად შესაწირავ ხატებს წარმოადგენს, რომლებიც ღვთაებრივი მფარველობისა და მეოხებისათვის, ან სულის მოსახსენებლადაა შექმნილი. მოჭედილ წმინდა სახეთა სხვადასხვაგვარი ინტერპრეტაციაა შესაძლებელი, მაგრამ უწინარეს ყოვლისა წინა პლანზე იწვევს მათი კავშირი სანაწილეებთან, რომლებიც ძვირფასი ლითონისგან იქმნებოდა.

სტატიაში განხილულია შუა საუკუნეების ქართული ჭედურშესამოსლიანი ფერწერული ხატები და მათი მნიშვნელობა ზოგადად მართლმადიდებლური სახის თაყვანისცემის სურათის აღდგენაში.

The adornment of sacred objects with precious metal, one of the forms of expression of Christian piety, was a widespread religious practice throughout the Byzantine world over many centuries. It is generally accepted that the cladding of Christian images in precious metal was a pious donation on the part of the faithful, representing thank-offerings to a heavenly protector, donations for past benefits or future protection, security, and salvation. During the past ten years or so, numerous publications have been devoted to the symbolic meaning of sacred images and to their religious use. Very little is still, however, known about the origins of the metal revetments of painted icons and their semiotic aspects (Durand, 2004, pp. 243-251; Sterligova, 1991, pp.331-346, 1996, pp. 133-142; Chubinashvili, 1959, pp. 572-605; Grabar, 1975; Ševčenko, 1992, pp. 56-69; 1985, pp. 74-79).

The roots of adorning of sacred images with precious metal (mostly silver, or gilt silver) can be traced in Holy Scripture and in popular beliefs. The medium of icon revetments, silver or silver-gilt due to their physical properties, and their glittering and radiant effect have a particular function in different cultures. In the custom of embellishment of Christian images with precious metal could be seen the assimilation of pre-Christian traditions such as covering of statues of gods with gold and dedicatory offering of robes to them in Antiquity and the Biblical-Jewish tradition of sheathing of sacred objects in precious metal. Similarities can be noted in the terminology used in Antiquity and Byzantine times for such offerings. ¹

Holy Scripture and the works of numerous Christian writers reveal a wide range of symbolic and theological interpretations of silver and gold, and their role in piety and religious practice. ²

The extensive use of gold in church art is based on Christian theology, which is entirely illuminated with the symbolism of light. Light, divinity and grace are semantically interwoven in Christian spirituality. According to Christian Gnosticism, gold is a symbol of divine light and metaphorically gold is an icon of light, while light is an icon of God. ³

Icons with repoussé silver sheathing are known throughout the centuries: they are recorded in numerous eleventh and twelfth century Byzantine church documents – typika and in the inventories of the monasteries. ⁴ The earliest Byzantine icons that still retain their silver revetment are dated to the twelfth century. Later, it seems to have been quite a widespread practice in the Byzantine world mostly

from the late thirteenth and fourteenth centuries.⁵ It is difficult to overestimate works of medieval Georgian masters as they demonstrate a great variety of types and iconographic formulae of precious metal adornment. Almost all surviving Georgian medieval icons have metal adornment of one kind or another, with the exception of works of the provincial school of painting generally termed the Svaneti school.⁶

The study of the metal decoration of early Georgian icons is quite a challenging task, because none are preserved in their original state. More precisely, we have at present only the metal sheathing of once venerable images, while their painted parts are missing. The metal parts of icons are often fixed on to new boards with modern (eighteenth and nineteenth century) paintings, replacing or “reconstructing” the lost, or damaged, originals. Donors’ inscriptions on revetted icons contain no information about the painted images and so it is extremely difficult to discuss with any degree of certainty the correlation of painted icons and their precious metal decoration.

Traditionally, Georgian painted icons are adorned with silver (mostly silver-gilt) repoussé revetments, which cover the entire surface of the icons, leaving only faces exposed. The following type of repoussé casing appearing on Georgian icons consists of silver frames and background, or “field” of painted representations (see below for a discussion of the repoussé covering of the area around the figures; the latter term will be used since it is more appropriate for this part of icon revetment rather than the generally accepted “background”). To the last group are attributed icons with more modest decoration consisting just of metal frames. On numerous icons, where original metal parts are missing, traces of repoussé coverings such as silver nails, and/or fragments of mastic (resin) can still be seen. The preserved material indicates that the precious adornment and the painting of icons often belong to the same period while there are cases when icons received their adornment later on.

The sixth or seventh century encaustic icon of the Holy Face of Edessa from Ancha, or Anchiskhati, one of the most venerated holy images of medieval Georgia, is a striking example of this practice (Fig.1). According to tradition, this image appeared in Georgia at the time of the apostles and is connected with the Apostle Andrew (Ioanne of Ancha; Kubaneishvili, 1946, pp.381-383). The repoussé adornment of the icon is a product of five different historical periods: the repoussé frame was executed at the end of the twelfth or beginning of the thirteenth centuries, the inscription states that Ioanne,

bishop of Ancha adorned the icon, on instructions from Queen Tamar (before 1204), in the fourteenth century (about 1308-1334) the wings and the rounded top have been added, while the reverse of the wings were revetted in the 17th century. In the 18th century the setting of icon was renewed and precious stones were added, and the repoussé figure of Christ is a work of the 19th century. The icon of the Virgin Petritzonissa from Backovo monastery is supposed to have been executed in the early eleventh century, the present revetment is a work of the fourteenth century (1311), and icon was clad in a new revetment in 1819. According to A. Grabar the traces of nails on the Virgin's hands indicate that originally all the image except for the faces was covered with repoussé adornment (Grabar, 1975, p. 34, fig. 18; T. Sakvarelidze, 1987, pp. 8-24; figs. 1-5, pp. 26-28, fig.7).

In most cases the precious metal revetments of medieval Georgian painted icons are the traditional places for the display of patrons' dedicatory inscriptions. These inscriptions are a precious source for our investigation since they throw new light on the icons' repoussé cladding. The present article will be concerned with an analysis of some of the most significant examples of metal adornment with inscriptions and will offer some suggestions for the interpretation of precious metal coverings of painted images. It is impossible in a short article to address all the issues involved in the creation of precious casings, and so the discussion will be limited to images of high artistic quality, mostly belonging to "official art", with typical features of this type of icon.

The Transfiguration icon from Zarzma, is the oldest preserved example of an icon with a repoussé revetment (Fig. 2) (Georgian State Museum, Sh. Amiranashvili Museum of Fine Arts, original size 160x110cm.) (Chubinashvili, 1959, pp. 27-42, fig. 1-4; Sinai, ed. Y. Piatnitsky, O. Baddeley, 2000, B 97, pp. 119-120). Transfiguration icon was originally a painted image created in the early medieval period, presumably in the seventh or eighth century, received a repoussé metal cladding only later. This is one of the exceptional cases when the inscription contains exact date of the creation of the precious metal adornment. The embossed inscription in early Georgian asomtavruli uncial script on the lower part of icon states: "Christ, in the name of God this icon has been clad in help of Ghiorgi, lord Parsman Eristavi, Ivane, Tki... Mirian, Sula under the superior of the monastery Pavle ... choronicon was rv [106+780 = 886]" (Chubinashvili, 1959, p. 28). The painting of the icon is not preserved, but the repoussé revetment faithfully follows the painted composition

and gives us a clear idea of the original scheme of this venerable image. The silver adornment covers the entire surface of the icon leaving only the faces of the figures uncovered. The character of the silver gilt embossed revetment with the expressive, linear treatment of the flat monumental figures is in accord to the stylistic development of the Georgian plastic arts of this epoch. Later, in the second decade of the eleventh century, Zviad Eristavi restored the damaged part of the icon and fixed it on to a new board. He added a silver-gilt repoussé frame with 10 scenes from Dodecaorton. His supplicatory inscription reads: “In the name of God I, Zviad Eristavi, son of the blessed Eristavi Araba, was honoured to embellish this true icon; have mercy on my soul and my flesh, icon of the Transfiguration intercede for my soul on that day [Judgement Day]“ (Chubinashvili, 1959, p.32).

This image with miracle-working powers had a special importance in the spiritual life of medieval Georgia. The life of the monastery founder, The Life of Serapion of Zarzma, contains valuable information concerning its history. Throughout the Life, written by Basil of Zarzma, there is a stress laid upon the importance of the “life-giving icon of Transfiguration” and praise for its miracle-working powers. What is specially stressed in the text is the importance of the mission of Serapion, who is compared with Moses, chosen by God for a special mission. Like Moses, who received the Law and Commandments from God, Serapion was honoured to bear and to “erect” the icon of the Transfiguration, “where God is depicted in the flesh for veneration and prayers of the believers and for performing healing and other miracles” (Georgian Literature 1987, pp. 639-682; Chubinashvili, 1959, p.31).⁷ Further on we read of several miracles performed by the icon.

Somewhat later example is an icon of the Virgin Haghiosoritissa from Khobi (Fig. 3), (Georgian State Museum of Fine Arts, 55x43cm, painting of the eighteenth or nineteenth century, silver-gilt, cloisonné enamel). This icon demonstrates the same type of revetment where whole surface is “hidden” by a repoussé cover and only the painted face is visible. Regrettably the painting of icon is lost. The repoussé cover depicts the Virgin in half-length, turned to the right, with her head slightly inclined and her hands in a traditional gesture of prayer. The Georgian inscription beneath the figure of the Virgin, executed in *asomtavruli*, says: “Christ, the most-holy Mother of God, intercede before Christ for the soul of King Leon”. The person mentioned in the inscription is identified as Leon the Third (957-967) and it is assumed that an icon created for the salvation of king’s soul

must have been executed after his death, about 970 (Chubinashvili, 1959, pp. 573-579, figs.: 63-65). The features of the metal relief of this icon, which should be considered as an example of court art, reveal the advanced tendencies of its time. The character of the embossing demonstrates the important achievements in the depiction of the plasticity of the figure. At the same time the icon attracts by the particular decorative effect of the ornamental frame, where enamel medallions with holy images are inserted. The reverse of the icon is also covered with a silver revetment. The decoration of this side of the icon consists of the Cross of Golgotha erected on a four-stepped base with the sigla IC XC NIKA. The inscription on the reverse of the icon states that the back was revetted with silver during the reign of David Narin (1245-1293) by Bedan Dadiani, Eristavi and Mandaturtukhutzesi, (a high dignitary in medieval Georgia responsible for internal affairs) and his wife Khvashak.

The representation of the Mother of God in supplication on King Leon's icon from Khobi is an early replica of the highly venerated Constantinopolitan icon associated with Hagia Soros in Chalkoprateia, where a precious Christian relic, the girdle of the Virgin, was housed. The depiction of the Virgin Hagiosoritissa, which is linked to the eschatological theme of the Deesis, on an icon created for the redemption of the soul of a Georgian king might be explained by the special relationship between a popular icon and services for the dead. It has been recently suggested that the icon of the Virgin Hagiosoritissa had a funerary character. Moreover, there is a theory, which identifies "*signon tes presbeias*" mentioned in the description of the memorial service in the typicon of the Pantocrator monastery (1136) with the Hagiosoritissa icon (Chryssanti Baltoyanni, 2000, pp. 148-149). This suggestion is strengthened by the frescoes of Sopocani (1260-1265) where the funeral procession of the first Serbian king Stefan Nemanja is accompanied by an icon of the Virgin Hagiosoritissa (Sevcenko, 1991, p. 55, fig. 24). It seems quite likely that the lavishly adorned icon of Khobi with a supplication for the soul of King Leon had a certain connection with specific funerary or commemorative services. Another document, the typicon of the Kosmosoteira Monastery (1152) indirectly supports this hypothesis. The founder of the monastery Sebastokrator Isaac Komnenos "framed with an ornament of gold and silver" an icon of the Virgin Kosmosoteira from Rhaidestos. According to Isaac's will he desired this icon which had been sent to him down from heaven, together with an icon of Christ, to be set on his tomb, where "... it should remain

resting throughout all times... to mediate for my wretched soul” (Byzantine Monastic Foundation, v. 2, p. 839). It is true that we do not know what type of Virgin image was depicted on Isaac’s icon, but an association between these two icons seems quite plausible since both images, belonging to the imperial family, were decorated with precious metal and were regarded as icons with special functions.

An interesting example of family patronage is represented by the Deesis icons from Mgvimevi, attributed to the early eleventh century. (Fig. 4) (87x67cm, painting, gilt silver, Georgian State Museum Sh. Amiranashvili Museum of Fine Arts, Chubinashvili, 1959, pp. 598-600, figs. 68-70, 79). The Deesis consists of three “completely revetted” icons depicting Christ, the Virgin and John the Baptist in half-length. Eristavt Eristavi of Racha (northwestern Georgia) Rati and his wife Rusudan adorned these icons. Unfortunately, today we have only the embossed parts of the icon (the painted faces we see now are additions of the eighteenth or nineteenth century): namely, the metal sheathing, covering the central part, the figures and the “fields” around them as well as the ornamental borders of the icon. Well-composed figures and ornamentation, consisting of exquisitely curling leaves, reveal the hand of a skilful master. As becomes clear from the beautiful two-line donors’ asomtavruli inscriptions placed in the lower part of the icons, Rati adorned the icons of Christ and John the Baptist while his wife had chosen the Virgin as her personal protector, and as we read in the inscription the icon of the Virgin was adorned “with the gold of the queen of queens Rusudan” (Chubinashvili, 1959, pp. 592-599; Chichinadze, 2000, p. 26).⁸ The function and original place of these icons in church is not clear for us today, but the subject and size of the Mgvimevi set permits us to suppose that they were initially placed on a chancel barrier (templon).

Two other Georgian icons should be mentioned among “completely revetted icons”. Both represent Christ Pantokrator, and one comes from Tzageri and the other from Tzalenjikha (respectively 87x57cm, gilt silver, 72,5x52,5 cm, gilt silver, niello. Both are now in the Georgian State Museum Sh. Amiranashvili Museum of Fine Arts, Chubinashvili, 1959, pp.182-190, fig. 99, 100, and p. 579-584, figs.80, 81). As usual, only the silver revetments of these adorned images are preserved. The inscription on the Tzageri icon (Fig. 5) executed in repoussé on the right inner strap and connecting the frame and the “field” of the icon says: “Saviour of all [born] creatures, glorify with your glory the divinely crowned powerful Bagrat king of the Abkhazians and Kouropalatis of the entire East. Amen”

(Chubinashvili, 1959, p.189). G. Chubinashvili attributes the icon to the beginning of the eleventh century, since “Bagrat the King” is identified with Bagrat III (975-1074) who received the title Kourapalatis in 1001. On both icons we have frontally depicted repoussé half-length figures of the Saviour with a traditional blessing gesture and a closed Gospel in his left hand. The carpet-like ornamental field and the frame with additional images (three medallions with frontal busts of angels are placed in the centre and corners of the upper border; the Virgin and John the Baptist depicted in three-quarter view are placed on the left and right vertical borders respectively; the lower border is missing) inserted in the ornamental pattern, a double rowed foliate motive, gives a restricted splendour to the Tzageri icon.

The second icon of Christ from Tzalenjikha attracts attention by its brilliance and refined artistic taste. This beautiful icon, with a sculpturally portrayed monumental figure of Christ, is richly embellished with repoussé and niello ornaments. Gold ornamentation on the black niello background decorates Christ’s halo and the borders of the icon. Enamel medallions create additional colourful accents and create a particular decorative effect. Originally the icon had ten large figurative, and ten small ornamental, medallions. Today only two enamel medallions survive on the upper border: a central medallion with a frontal Christ and St. John the Baptist in the left corner.

The Tzalenjikha icon, one of the masterpieces of Georgian medieval silversmithing reveals a characteristic feature of Georgian medieval repoussé, namely a striking synthesis of plasticity and decorativeness. A sliding revetted back (42 cm. wide) containing relics of the True Cross was added to the icon in the thirteenth century. The receptacles for relics, one cruciform and several small and rectangular, are accompanied by painted images of Constantine the Great and Empress Helen. The repoussé decoration of the reverse is composed of the flat Cross of Golgotha and an *asomtavruli* donor’s inscription above the horizontal arms. The inscription belongs to a representative of an influential Georgian feudal families, the Dadiani: “Son of God, only born divine and inseparable from the Holy Spirit, prolong the days of Giorgi Dadiani and make him worthy of beatitude in both lives, and may he be a protector and a guide for the son of my brother (nephew)” (Chubinashvili, 1959, p. 581, 480-482). We don’t have any historical evidences to this icon, but the high artistic and technical mastery of the exquisitely decorated rich covering, together with the revetted back and the relics of the True Cross, make it clear that the Tzalenjikha icon was a significant example of “court art”. At the

same time it must have been one of the most highly venerated images at least between the eleventh and thirteenth centuries. It should be mentioned that prototype of the Pantocrator and the icon of the Virgin Aghiosoritissa (discussed above) was a Constantinopolitan miracle-working icon and served as an “imperial icon” (Chryssanti Baltoyanni, 2000, pp. 147-149).

A number of noteworthy “adorned” icons dating to the eleventh or thirteenth centuries bear donors’ inscriptions reflecting their commissioners’ votive intention. Most of the commissioners of adorned icons or rich metal coverings for painted images were of elevated rank, as in the case of the kings who adorned icons with precious adornment we have just discussed: Bagrat III Kouropalates (954-1014) commissioned an icon of Christ; David IV the Builder (1089-1125) and his son Demetre I (1125-1154) contributed to the creation of a lavishly decorated setting, a triptych, for the famous enamel image of the Virgin Hagiosoritissa, from Khakhuli dated to the tenth century; Queen Tamar (1189-1213) ordered a precious metal adornment for the sixth or seventh century miracle-working icon of the Holy Face of Edessa from Ancha (Fig.1); David V was the donor of a small triptych dated to 1253-1263 (now lost) with double-sided repoussé revetment where the central image of the Virgin and Child was accompanied by his portrait. (Amiranashvili, 1972; Papapmastoraki, 2002, pp. 225-254; Amiranashvili, 1956, pp. 7-27; Chichinadze, 1996, p. 71, fig. 9;). High dignitaries and members of powerful feudal families, high ecclesiastics: bishops, archbishops, metropolitans, as well as monks were among the commissioners of such icons ⁹. The supplicatory inscriptions reveal that ordinary believers also contributed to the creation of metal icon covers or also adorned icons. We have one example of collective donorship when a whole community, the inhabitants of valley of Svipi, adorned an icon of Gabriel Archangel (thirteenth or fourteenth century) (Takaishvili, 1937, p.194, N 20; Chichinadze, 2000, p. 28).

The standard formulae of these repoussé supplicatory inscriptions that were placed either on the lower borders of an icon or its reverse, were executed in asomtavruli Georgian script. They are addressed in slightly varying terms to the sacred personages represented (mostly Christ, the Virgin, John the Baptist) and state that the donor embellished (clad, revetted, embossed in silver or gold) an image on behalf of deceased or living members of their families, for the atonement of their sins and for the salvation of (his and/or their) souls. According to the inscriptions placed on Georgian revetted

icons, their precious metal decoration could be attributed to the so called “psychika” or “proactive offerings dedicated for the salvation of the soul” made to holy images by believers (Vikan, 1995, p. 571, Mundell Mango, 1986, p. 5).

The importance attached to the metal adornment of holy images was clearly expressed in the supplicatory inscription on the Saviour icon from Pkhotreri with repoussé cladding. A painted image of Christ received a beautiful silver-gilt repoussé ornamental field and frame, stolen in 1936. Now only the wooden panel with small fragments of Christ’s repoussé silver halo is left (the icon painting is completely rubbed away as well) (Takaishvili, 1937, p. 416, No 10; Chichinadze, 1989, p. 25). An eloquent inscription stated that Queen Rusudan (“daughter of Demetrios, sister of king and the sun of kings, George, daughter-in law of the sultan”) could not fulfil her intention to adorn the icon because of her death. She begs the Lord to accept the gift (the icon), which was completed by Tamar, her niece (who was raised by her) with donations prepared by Rusudan (it is not quite clear, however, from the text what was meant by “donation”, whether it was material or money). In this connection it is worth quoting Chapter 20 of the Backovo typicon (“Concerning lay people who give money in the holy church for liturgies to be held for the dead”), which states that offerings “serve ...to benefit the souls for whom they are brought as well as those who offer them” (Byzantine Monastic. v. 2, chapter XX, p. 544). In this light the eloquent inscription on Rusudan’s icon acquires a new meaning and makes it clearer why the text says in detail why and by whom this image was embellished.

Completely revetted icons when just the painted faces of sacred personages are left uncovered could be interpreted in a variety of ways. It could be assumed that this practice reveals a linkage between icon revetments and precious metal reliquaries. The early Christian cult of martyrs and their relics might be perceived in the practice of covering holy images with precious metal. It is generally agreed that the cult of icons was closely linked to the cult of martyrs and it has been suggested that icon revetments belong to the tradition of creating precious receptacles, or reliquaries, for holy relics (Kitzinger, 1954, pp. 83-151, spec. pp.115-119; Grabar, 1946, v.2, pp. 343-357).

Double-sided revetments on medieval Georgian icons increase the links between images and relics. The compositional structure of the repoussé reverses of our icons is characterised by a standard scheme. Supplicatory inscriptions are placed around the Cross of

Golgotha, or are inscribed in quatrefoils. Double-sided revetment occurs on separate icons (i.e. the tenth century Virgin Hagiosoritissa icon from Khobi, the icon of Christ from Tzalenjikha, the thirteenth century Hagiosoritissa icon from Nesgun (Fig. 7), another small thirteenth century icon of the Virgin Hagiosoritisa from Ushguli, the late thirteenth or fourteenth century icon of the Virgin and Child from Ushguli, etc.) and on images incorporated in triptychs (the thirteenth century Virgine Hodegetria icon placed in the central part of a triptych of the Palaiologos period in the Historical-Ethnographic Museum of Mestia, or the St John the Baptist inserted into a triptych of the second half of the thirteenth century from Labskald) (Takaishvili, 1937, p. 174, No 18). Numerous small-scale triptychs dated to between the thirteenth and fifteenth centuries have double-sided silver sheathing: the now lost Triptych of king David V, 1252-1263, the triptych with the Virgin Hagiosoritisa from Ushguli, the thirteenth or the fourteenth century triptych with the Passion of Christ from Ushguli (Fig. 8), the fourteenth century triptych with Prophet Elijah from Ushguli, etc.) (Chichinadze, 1996, p.71, figs; 6-9). These triptychs in their turn could be associated with Christian enkolpions, precious objects with apotropaic functions, made from gold, or silver and often decorated with enamel and/or niello (and sometimes containing relics), which apparently reflect the same approach to the sacred images as to relics.

It has been argued here that the repoussé revetments of medieval Georgian icons with donors' supplicatory inscriptions belong to the same category as "public images", miracle working-images, title icons of churches, and templon images displayed for public veneration. By the embellishment of "public images" special, more personal links between donor and sacred object were established. Donations of money or precious material allowed the commissioners of the revetment to declare his or her role in praising the holy image and accordingly its prototype. The act of adorning of images was at the same time a manifestation of the donor's particular status. The commissioning of embellishment with donors' names, their titles, and sometimes their origins, brought them closer to images and accordingly to the depicted holy protector. By integrating prayers of supplication that included names on the revetments of venerable icons, the donor became incorporated into both public and private veneration and thus was, appropriately represented in the liturgy. Such a "permanent presence" of donor by the placing of their prayers in visible places ensured their permanent commemoration during

church services. It is appropriate to remember the words in the embossed inscription on the Khakhuli triptych comparing the creation of the precious mount for an icon of the Virgin with the workmanship of the Biblical Bezaleel, who embellished the Tabernacle and the Ark of the Covenant (Exodus: 31) (Amiranashvili, 1956, pp. 39). According to this inscription, the provision of icons with precious mounts goes beyond personal necessity and acquires a wider, missionary character.

The Christian custom of sheathing images in precious metal is another widespread custom of interaction between “the holy” and believers. The metal revetments of icons expressing supplicatory prayer in both verbal and material forms, recall sanctuary barriers or the meeting point of heavenly and earthly worlds, which according to Patriarch Germanos (“*Historia Mistagogica*”) “denotes the place of prayer” (Mango, 1986, p. 143;).

The wealth of survived Georgian medieval icons with repoussé revetment, which demonstrate a great variety of types and iconographic formulae of precious metal adornment, allow us to suggest that Georgian medieval artists contributed to the development of the artistic language and forms of this type of icon. The high artistic level and technical quality achieved, the elaborate theological programmes of the icons’ revetments, which entirely respond to the purpose of the metal votive offering demonstrate that the Byzantine tradition of cladding painted images in silver, adopted by Georgian artists found an extremely fertile local soil. Georgian medieval masters are far from being simple provincial copyists of the Byzantine models, as it is usually admitted, but the centuries-long tradition of metalwork (which extends from the Bronze Age, through the Middle Ages, until modern times), and the advanced artistic tendencies that can be traced in eleventh and thirteenth century Georgian art, stimulated original creativity and the re-interpretation of Byzantine originals. Further research in this direction will enable us to explore issues concerning the impact of the Georgian medieval art of metalwork on the development of this branch of Christian Orthodox art.

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Notes

1. Similarities can be noted in the terminology used in Antiquity and Byzantine times for such offerings. As A. M. Talbot argues the term used in the Manuel Philes' epigram referring to an ex-voto precious metal adornment of the Virgin Zoodochos Pege *sostron* (*ek chrysargyron*) was used in antiquity for thank-offerings to the god Asklepios in gratitude for healing. (Talbot,1994, p.154);

2. The significance of gold as well as of silver appears throughout the Old Testament. According to Exodus God commanded Moses to collect silver and gold (together with bronze, purple wool etc.) in order to make a sanctuary where the Lord will dwell, according to the divine order all the furniture of sanctuary was made from gold and silver (Exodus: 25: 2-4, 8-9, 11; see also Exodus chapters: 26, 28, 30, 36; Numbers: 10: 1 - 2, etc.). The sacred meaning of gold is also stressed in the description of the Temple of Solomon (Kings III, 6:21-22; 28-35 etc.). For the understanding of the symbolism of icon revetments we should refer to the Gospel description of Adoration of Magi (Matthew 2; 11). We read that wise men worshipped a "young child" and "presented unto him gifts: gold, and frankincense, and myrrh". These gifts brought to the infant Jesus acknowledge his divinity and power. Thus these gifts acquire special meaning and likewise, they were offered to sacred images: icons are adorned with precious metal covers, they are censed and candles are lit before them as a sign of reverence and piety. As Basil the Great says: "The honour (shown) to the image is conveyed to its prototype".

3. See Christ's words (John: 8; 12): "I am the light of the world; he that followeth me shall not walk in darkness, but shall have the light of life" The Gospel of John emphasizes that the presence of God is light: "And the light shined in darkness, and the darkness comprehended it not" (John: 1; 5; see also John 12:35-36). In Exodus we read, that the glory of Lord was "...like devouring fire on the top of the mountain" (Ex.: 24; 17) etc. For gold symbolism in Byzantine theology see Averintzev,1979, pp. 47-67;

4. Rule of Michael Attaleitas for his Almshouse in Rhaidestos and for the Monastery of Christ Pantocrator, 1077; Typicon of Empress Irene Doukaina Komnena for the Convent of the Mother of God Kecharitomene in Constantinople, 110-16; Typicon of the

Sebastokrator Isaac Komnenos for the Monastery of the Mother of God Kosmosoteira near Bera, 1152; Inventory of Maximos for the Monastery of the Mother of God at Skoteina near Philadelphia, 1247; Inventory of the Monastery of the Mother of God Eleouse near Stroumitza, 1449; Inventory of St. John Monastery of Patmos, 1200; (Byzantine Monastic Foundation Documents, 2000, v. 1, p. 357, v. 2, p. 715, 839, v. 3, p. 1186, v.4, p. 1671; C. Mango, 1986, pp. 238-239).

5. Late 13th c icon of the Virgin Aghiosoritissa from Freising, mosaic icons from Vatopedi - one with St. Anna and the Virgin and another with Crucifixion mosaic icon, both are dated to the end of the 13th early 14th c, mosaic icon of John the Evangelist from Lavra, Athos, the end of the 13th c, Mandylion from Genoa 14th c Annunciation icons from Ochrid, Christ Pantocrator Psychosostis and the Virgin Hodegetria Psychosostria, 14th, c, Skopje, etc. (Grabar, 1975, p. 41, no.16, fig. 39; p. 53, N 23, fig. 60, p. 52, N 22, fig. 53-59, p. 62, No. 33. Fig. 71-72; p.35, No.10, fig. 26-29; p. 38, N 12, 13, fig. 31-32)

6. For Svaneti school of icons see Weitzmann, et al. 1992, pp. 119, 123, 124

7. According to one version Basil - a nephew of Serapion, was a superior of the monastery of Zarzma in 916-926, while there is another theory attributing the events described in the Life to the seventh and eighth centuries (Chubinashvili, 1959, p.31).

8. Rati Eristavi and members of his family were the commissioners of several other "adorned" icons kept in the Georgian State Museum of Fine Arts. According to the supplicatory inscription Rati contributed to the adornment of the icon of Crucifixion (20x15 cm, gilt silver, the present poorly painted icon a later addition), his wife Rusudan adorned an icon of Christ (105x78 cm. silver-gilt, painting of the 18th or 19th centuries). Rati's father, Kakhaber Eristavi, who later became a monk under the name of Kirile (Cyril), commissioned an icon of Christ (97,5x73 cm, silver-gilt, painting). He is mentioned in the fragmentary supplicatory inscription of another icon. The icon is not preserved, but it is clear from the text that it depicted the Crucifixion (Chubinashvili, 1959,. pp. 592-599; Chichinadze, 2000, p. 26)

9. Inscriptions on decorated icons have preserved the names of the following representatives of medieval Georgian aristocracy: Giorgi

Dadiani, Beshken Amirajibi, Sasan and Vamek Vardanisdze, Vardan Inasaridze, etc. A twelfth century icon of Christ with repoussé revetment was commissioned by Symeon Metropolitan of Chkondidi, the monk Khosha adorned a thirteenth century icon of the Virgin Vlachernitissa (Chubinashvili, 1959, p. 619; (Takaishvili, 1937, p. 194, No 20; Chichinadze, 2000, pp. 27-28, pp. 26-27; 1996 p. 67, notes: No 8 and 17 with earlier bibliography; 1989, pp. 128-138)



Fig. 1. Anchiskhati Triptych; painting 6th- 7 th century; Mandylion icon revetment late twelfth or early thirteenth century; wings fourteenth century.



Fig. 2. Revetment of Transfiguration icon from Zarzma, AD 886.



Fig. 3. Revetment of the icon of the Virgin Hagiosorotissa from Khobi, about AD 970.



Fig. 4. Revetment of the icon of Christ from a Deesis, Mgvimevi, late 10th or early 11th c.



Fig. 5. Revetment of the Saviour icon from Tzalendjikha, 10th and 13th centuries.

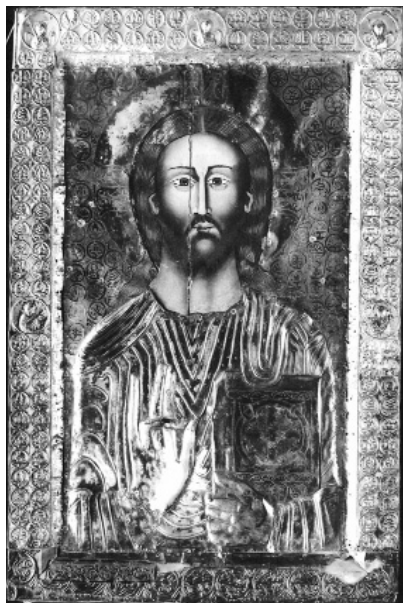


Fig. 6. Revetment of Saviour icon commissioned by King Bagrat III from Tzageri, late 10th- early 11th century.



Fig. 7. Reverse of the Virgin Agiosoritssa icon, early 14th c.

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Statement of the Problem (Task) of Optimization of Mode Irrigation

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Abstract

At first, planning the development of the separate areas of Georgia is necessary, alongside with other factors, to consider the opportunity to receive the needed quantity and quality of water. The task of water distribution is formulated so: at the presence of a deficiency of water in a pool from the examined river, it is necessary to find the optimum size deficiency waters paid to consumers within a given pool, and the optimality is understood at least the sums of economic damages at the set size of deficiency.

A new approach to answer the question of water-distribution should determine the tendencies in designing and creating the automated irrigation system by factors of the life of the plants providing reception of stable high crops of agricultural crops, close to their biological potential. It is necessary to note, that research on the technical perfection of ameliorative systems is being done continuously. In the process of developing a science there is improvement in the design of the system as a whole, and its separate elements. One of the major problems for the operation of irrigation systems it is the organization of the optimum control of distribution of deficient water resources. Such management can be carried out as soon as the automated control systems for water distribution are created.

The production function reflects the dependence of a crop's size on the volume of water allocated for its irrigation, which varies from year to year and from field to field—as it is related to soil fertility and meteorological conditions. Besides this, even under fixed conditions of an environment with the presence of a deficiency of water resources for crops, essential influence renders a mode of an irrigation. Terms and rates enamel that cause statement and decisions for the task of optimizing the mode of irrigation with a deficiency of water resources.

მორწყვის რეჟიმის ოპტიმიზაციის ამოცანის დადგენა და განხილვა

ელისაბედ ასაბაშვილი
საქართველოს უნივერსიტეტი

საქართველოს ცალკეული რაიონების და რეგიონების განვითარების პერსპექტიული დაგეგმარების მიზნით აუცილებელია სხვა ფაქტორების გვერდით გათვალისწინებული იქნეს წყლის საჭირო რაოდენობისა და ხარისხის მიღების შესაძლებლობები.

წყლის რესურსების განაწილების ამოცანა ფორმულირდება შემდეგი სახით: განსახილველი მდინარის აუზში წყლის დეფიციტის არსებობის დროს აუცილებელია მოცემულ აუზში მდებარე მომხმარებლებისათვის წყლის მიუწოდებლობის ოპტიმალური ზომის მოძებნა, თანაც ოპტიმალურობა გაგებულ უნდა იყოს როგორც სახალხო სამეურნეო დანაკარგების ჯამის მინიმუმი, მოცემული დეფიციტის სიდიდის პირობებში.

წყალგანაწილების საკითხების მიმართ ახალი მიდგომა უნდა იყოს პროექტირებაში ტენდენციების და მცენარეთა სიცოცხლის ფაქტორების ავტომატიზირებული სარწყავი სისტემების კომპლექსური მართვის შექმნის განმსაზღვრელი, რომელიც უზრუნველყოფს სასოფლო-სამეურნეო კულტურების მათ ბიოლოგიურ პოტენციალთან ახლოს მდგომ, სტაბილურად მაღალი მოსავლიანობის მიღებას.

უნდა აღინიშნოს, რომ კვლევები მელიორაციული სისტემების ტექნიკური სრულყოფისათვის ტარდება განუწყვეტლივ. მეცნიერების განვითარებასთან ერთად ხორციელდება კონსტრუქციების გაუმჯობესება როგორც სისტემებისა მთლიანობაში, ასევე მათი ცალკეული ელემენტების.

სარწყავი სისტემების ექსპლუატაციის ერთ-ერთ უმნიშვნელო-ვანეს ამოცანას წყლის რესურსების განაწილებისას წარმოადგენს ოპტიმალური მართვის ორგანიზაცია მათი დეფიციტის დროს. ასეთი მართვა შესაძლოა განხორციელდეს მხოლოდ წყალგანაწილების მართვის ავტომატიზირებული სისტემების შექმნით.

საწარმოო ფუნქცია, რომელიც ასახავს სასოფლო-სამეურნეო კულტურის მოსავლიანობის სიდიდის დამოკიდებულებას მის სარწყავად გამოყოფილი წყლის მოცულობაზე, იცვლება წლიდან წლამდე და მინდვრიდან მინდვრზე, რადგან ის დაკავშირებულია ნიადაგის მოსავლიანობაზე და მეტეოროლოგიურ პირობებზე. გარდა ამისა, გარემოს წინასწარ ფიქსირებული პირობების და წყლის რესურსების დეფიციტის არსებობის დროსაც კი მოსავალზე არსებით გავლენას ახდენს მორწყვის რეჟიმი, ანუ მორწყვის ვადები და ნორმები, რაც წყლის რესურსების დეფიციტის დროს მორწყვის რეჟიმის ოპტიმიზაციის ამოცანის დაყენების და გადაწყვეტის აუცილებლობას იწვევს.

Considering, that the purpose of cultivating agricultural fields is the reception of a quantity of a biomass of one or several bodies of a plant, the description growth process – accumulation of a biomass – is the major component of the formation of a crop.

The process of accumulation of a biomass of an agricultural crop is described by system residual the equations (I) with discrete time.

$$\left. \begin{aligned} M^*(\tau+1) &= M^*(\tau) + \alpha^* \sum_{j=1}^l m_j + \sum_{i=1}^{n-1} b_i \hat{M}_i(\tau), \\ \hat{M}_i(\tau+1) &= (1 - b_i - v_i) \hat{M}_i(\tau) + \alpha_i \sum_{j=1}^l m_j, \\ M_i(\tau+1) &= (1 - \omega_i) M_i(\tau) + \alpha_i \sum_{j=1}^l m_j - b_i \hat{M}_i(\tau), \\ L_j(\tau+1) &= (1 - g_j) L_j(\tau) + \beta_j \sum_{j=1}^l m_j, \end{aligned} \right\} \quad (I)$$

$$i \in I, \quad |I| = n, \quad j \in J, \quad |J| = l, \quad J \subset I,$$

$$\alpha^* + \sum_{i=1}^{n-1} \alpha_i \equiv 1, \quad (\alpha^*, \alpha_i, \beta_j, b_i, v_i, g_j, \omega_i) \geq 0.$$

Thus factors entering into the equations – parameters of the efficiency, being are known for functions of time and conditions of an environment. Parameters of efficiency $S = (\alpha_i, \alpha^*, \beta_j, b_i, v_i, g_j, \rho)$ have sizes which are distinct from zero on the limited interval of time:

$$S = \begin{cases} 0, & \tau \leq \tau_i \text{ or } \tau \geq \bar{\tau}_i, \\ S_{(\tau)}, & \tau_i < \tau < \bar{\tau}_i, \end{cases} \quad (II)$$

Where the moments of time τ_i and $\bar{\tau}_i$ also correspond to the beginning and end of the growth of i-that body and are defined by means of model of development.

The behavior of an object of management – an agricultural crop agrocoenosis, connected with the formation of a crop—is described by its(his) mathematical model.

“All biological blocks of model consider dependence of process of accumulation of a biomass of crops on factors of an environment. Into number of these factors enter: photosynthetic the active radiation Q coming on a surface of crop, average daily temperature of air in crop t , humidity root-inhabited a layer of ground ω , fertility of ground

η_{Π} , additional fertility due to application of fertilizers η ”.

Formally, the task of optimizing a mode of irrigation with one operating parameter – daily volume of the water φ submitted on the irrigated site—can be formulated as follows:

To define the determined discrete function $\varphi(\tau)$, $\tau \in [\underline{\tau}, \bar{\tau}]$, satisfying to restrictions

$$\sum_{\underline{\tau}}^{\bar{\tau}} \varphi(\tau) \leq \Phi, \quad 0 \leq \varphi(\tau) \leq \varphi^0, \quad (III)$$

So that at the decision

$$x(\tau) = \{M^*(\tau); M_1(\tau), \dots, M_n(\tau); \hat{M}_1(\tau), \dots, \hat{M}_n(\tau); L_1(\tau), \dots, L_n(\tau); w(\tau)\}$$

Systems difference, the equations (I) and models of the geophysical blocks, meeting entry conditions

$$x(\underline{\tau}) = \underline{x}, \quad (IV)$$

The population mean $R[M^*(\bar{\tau})]$ of a biomass $M^*(\bar{\tau})$ of economic-useful body in the end of the vegetative period $\tau = \bar{\tau}$ was maximal, i.e.

$$R[M^*(\bar{\tau})] \rightarrow \max \quad (V)$$

Here Φ – size of irrigating norm (rate), $\Phi = V / \omega$. V – total volume of water which it is necessary to submit for a time interval $\bar{\tau} - \underline{\tau}$ on an irrigated field; ω – the area of an irrigated field; j^0 – the maximal daily volume of submitted water on a floor(field); $\bar{\tau}$ – the moment of sowing.

One of the basic features of agricultural production is that when predicting the results of its functioning, the degree of uncertainty is high. This uncertainty has an objective character. Such feature of a branch demands application of specific principles and forms of planning and management.

Record of criterion of efficiency in the form of (V) assumes, that in a problem (task) of definition of “optimum strategy all uncontrollable factors have the stochastic nature”. First of all it is total radiation $Q(\tau)$, temperature of air $t(\tau)$, total evaporation $E(\tau)$, the atmos-

pheric $\theta(\tau)$, precipitation modeled by discrete casual processes; in second the turn is uncertainty of a vector of entry conditions of a condition of object of management.

The information on factors of an environment can be set doubly: in the determined form – in the form of the realization of casual processes and in the stochastic form – and in the form of casual processes with the set laws of distribution.

However, information on the weather, in any form makes it impossible to depend on good prospects for weather to really be carried out.

In connection with that that in the entrance information the source of significant mistakes (errors) is covered, there is a necessity regularly, in process of receipt of the new entrance information to correct (adjust) the plan, differently in other words, realizing operational planning of a mode of an irrigation.

Operational planning of a mode of an irrigation during the moment of time $\tau = \tau_0$, $\underline{\tau} \leq \tau_0 < \bar{\tau}$ represents the decision of a problem (task) (III) – (V) optimization of a mode of the irrigation, meeting the entry condition

$$x(\tau_0) = x_0 \quad (VI)$$

Measurement a component of a vector x_0 during the moment of time $\tau = \tau_0$ represents a labor-consuming problem. As a rule, “The accuracy of such measurement low, that forces to consider x_0 as a casual vector with, Gaussian distribution.” To simplify the process of measurement, in particular for its automation, it is of interest to determine lightly measuring parameters of plants and an environment. Having connected their functional connections with phase coordinates, so that the measured values of these parameters received by the moment of time τ , have formulated an estimation of values of a vector of phase coordinates during the moment of time τ .

Statement of and a decision about the problem of supervision, filtration and optimization of the program of irrigation allow the construction actually optimum mode of an irrigation $\varphi_0(\tau)$, $\tau_0 \leq \tau < \bar{\tau}$ and dependence

From size of irrigating norm (rate) F , $0 \leq \Phi < \infty$ and actually

optimum mode of the irrigation $\varphi_0(\tau)$ corresponding (meeting) fixed value of parameter F , to an allocated field for the period $\bar{\tau} - \tau_0$.

Sizes y and F are the specific characteristics carried to unit of the area of the irrigated field. Having defined (determined) a quantity of pairs their values $\Phi(\tau_0) \rightarrow y$ for the moment τ_0 , it is possible to construct function of communication (connection) of total gathering of production Y from all irrigated field ω_0 the area with volume of the water $V(\tau_0)$ submitted on a floor (field) for the period $\tau_0 \div \bar{\tau}$:

$$y = \max R[M^*(\tau)] = y(\Phi) \quad (VII)$$

Thus

$$Y = Y[V(\tau_0)] \quad (VIII)$$

$$Y = y^{\omega_0} \quad (IX)$$

$$V(\tau_0) = \Phi(\tau_0)\omega_0 \quad (X)$$

Function (VIII) represents for fixed τ_0 and at absence of sources of natural humidifying, the concave-convex curve certain in an interval $0 \leq V < V_0$.

“Depending on a zone in which the agricultural crop and consequently, from a degree of natural humidifying function can be $Y = Y(V)$ transformed is grown up”.

Considering, that the system, by which process of formation of a crop is described, is dynamic, the finding of optimum control of it is challenging enough. It becomes necessary to estimate available approaches for its decision and to choose the most comprehensible.

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The University of Georgia was founded at the end of 2002 by two professors Dr. Giuli Alasania and Dr. Manana Sanadze. The basic values of the university are to provide the coming generation with multidisciplinary educational opportunities with an accent on developing creative thinking and the skills necessary to make it competitive in this challenging era of high technologies, give practicing professionals opportunities to obtain, refresh and enhance their qualifications, raise the level of the education in order to educate the whole person for successful careers of service to the community, to the nation, and to the world.

The Creation of Caucasus Journal of Social Sciences was inspired by Edward Robert Raupp.