

From Ottoman to Western Infrastructure: Preliminary notes on Building the Waterworks of Sofia in the second half of the 19th century

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Abstract

The paper deals with the process of introducing centralized water-supply system in the Sofia inhabitants' lives in the end of 19th century. The newly created Bulgarian state started its existence trying to break with inherited from the Ottoman Empire cultural, economical and technological patterns. The way it had to be done was not by inventing own ones, but adopting pre-made western patterns for Bulgarian conditions. However as far as the Turks left peculiar infrastructure elements, the modernization of waterworks occurred more like substitution of the Turkish with adapted of the western technologies.

The problems which accompanied the introduction of the new equipment lied down in few directions. On one hand, the Ottoman baths and fountains were embedded in a specific symbolic world, which includes also particular way of water use. On the other hand, the traditional habits of the Sofia as a part of habitat established long ago were inert and very slow changeable. The fast transformations in technological and social sphere led to a numerous situations of heterodoxy.

To respond to the new standards the waterworks of Sofia has been adapted several times. However its real success required both adjustment of the social environment and the technological base. The Municipality of Sofia was tempted to use administrative coercion for securing that goal. The real importance of modern waterworks was not in its better technological qualities, but in its usefulness as for the efforts of making Sofia western type of city.

Next after the Liberation of Bulgaria from the Ottoman Empire in 1878, despite being the capital of the new country, Sofia cannot be called “a city”. The category “inhabitant of the capital” still is not filled with particular meaning. The city substance of the environment has to be created and people who lived in there – to become “citizens” and “Europeans”. The city infrastructure turns from an object of luxury consumption into a social and personal necessity, it becomes a condition for the normal rhythm of the standard urban life. This is not a predetermined process, it does not proceed straightforward, without resistance. The rationally calculated benefit is not self-evident. This paper deals with the problem who were the main actors and forces of building the waterworks of Sofia in the end of 19th century and how they intertwined.

The process of building a water-supply system can be viewed as a problem of normalizing the habits of its users. The implantation of the new spatial-structural and technological elements in the city space needed people to be trained for and to develop different everyday activities – how to use these elements, how to

read and maintain them; or, on the contrary – how to boycott, monopolize, neutralize them; how to treat the experts, who represented them, how to define the limits of their competence and intervention; how to situate themselves in relation to all the actors in the process and so on.

The establishment of the Third Bulgarian state in the 1878 was not a breaking point in the everyday life of the people. Building of waterworks in Sofia required multidimensional solutions of adaptation and rejection with respect to the social environment, to the product and to the model of water use. Not all of the examples in the paper are directly linked with the waterworks but however they are typical for the way people in the 19th century Sofia dealt with the specific situations.

I will argue here that about a modern infrastructure we may speak only then, when the water becomes a commodity, a commodity to which price is acquired: i.e. when through privatization its character of a natural recourse for common free use has been changed. This process is tied with the constitution of the modern type of public sphere or public good, as far as it presupposes both a separation of the water-supply system from the sphere of communal life and the appearance of the private individual. For the purpose of the analysis I shall use the concepts of social space, habits and capitals (Bourdieu, 1993a) (Bourdieu, 1993b) and of diffusion of innovations (Akrich, Callon & Latour, 1996; Akrich, Callon & Latour, 2004).

The Ottoman Heritage

After the Liberation, Bulgaria inherited all the infrastructure elements, which Ottoman Empire has built in its ex-possession. The Ottoman society was feudal and the ethnic groups living in the Ottoman cultural sphere were organized in peculiar traditional communities. The town culture of Ottoman Empire however, was quite different from the medieval western city culture (Todorov, 1983). The Islam is a religion of the town and the collective memory of its founders – nomads from desert places - pervaded in the fundamental values of the whole religious system. Thus the specific character of the infrastructure in Bulgarian cities in 19th century has been the consequence of two important features: the Turkish cult to water¹ and the favourable natural environment and climate conditions in the most settlements. As a result, a lot of Bulgarian cities, especially those with mixed ethnic population, developed traditions in city water-supply systems – a lot of public baths and fountains were built there.² Waterworks were built in the town of Pazardjik in 15th century. They were upgraded later in the 17th century with the financial support of Turkish benefactors in both cases. The waterworks included seven piped springs and 1635 meters long pipeline, which was buried 1-1,5 meters deep to keep the water cold. In the town itself the waterworks spread out in three directions and delivered the water to more than 30 fountains. There were Ottoman waterworks also in the towns of Dupnica, Skopje, Sevlievo and others (Gavrilova, 1999:176). The technologies of the small semi-Islam town, such as Sofia in the 19 century, were embedded in a specific horizon of symbolic meanings. Turkish baths usually were built as an extension of a mosque and were part from a bigger vakif complex - pious foundation, providing different religious and charity services. Taking a bath twice or three times a week was a substantial part of the value system and everyday life of the Muslims. Most of the travellers through the Balkans in 18th-19th century were impressed by the number of public baths and the strict observance of the hygiene standards by the Turks. The roots of this heart for bath are to be found in the compulsory ritual ablution before the prayer: It is an obligation for the Muslim to wash his face, mouth, nose, neck, forearms and feet in the traditional fountain in the courtyard of the

mosque. Although the importance of washing was based on religious grounds, in the course of time the regular bath taking became a substantial part of the everyday life.

In the richer Turkish houses, and in some Bulgarian, the waterworks sometimes was connected with a courtyard fountain. The courtyard itself was covered with big paving stones and has been cleaned carefully from the manure. Most of the houses however offered nothing of the kind. The rubbish and the cesspool in the middle of the courtyard were something usual; hens and rabbits were bred in the basement, pig in the backyard. This kind of household activity organization was not perceived as uncivilized or dangerous, the connection between filth and diseases still did not exist. People perceived as dirty some different things – to eat with dirty hands, insects on the body, stains on the clothes (Gavrilova, 1999:175). The copper plates and pans were cleaned regularly, but there were few of them – most people used earthenware vessels.³ The commonly accepted cultural norm for the degree of cleanliness of the body and of the house determined the amount of used water in Bulgarian case too (for the similar conditions in West-European context see Elias, 1999).

Immediately after the Liberation in 1878 Bulgarian towns bore the signs of the typical Balkan mixture of cultural influences. With this respect the Bulgarian society was not an exclusion from the most pre-modern societies, where the washing was regarded as an unnecessary risk and the ideas of the naked body were infiltrated with taboos and superstitions. During the main part of 19th century, the ordinary Bulgarian town family took a bath once a week at best, even when living in a place, as famous with its baths and mineral spring as Sofia was.⁴ More often were washed only the hands, the face and the neck (the visible parts of the body) – before every meal, on visits and in the morning after rising (Gavrilova, 1999:175-184) Even after 1878, despite the impetuous invasion of western cultural patterns in the country, for the inhabitants of the cities it was hard to change their attitudes – Mirchev reports that even at the very end of 19th century a lot of inhabitants of the capital thought that the cleanliness was not obligatory for the serious people and that only the women and the flight men were to take care for their look (Mirchev, 1979:183). In some cases the water usage in the household depended also on the occupation of the father. When the city core turned into business and administrative district in the last two decades of 19th century, a lot of craftsmen lost their traditional store place. Most of them however moved to the peripheral districts, where their work had a good market among not only the neighbourhoods, but also among the passing peasants from the surrounding villages. In the new place they usually built their new workshops and stores as a part of the family house. This organization of production allowed the family to help immediately the father, but often affected the hygiene of the house negatively.

The potential of industrial production as an interested agent, user and source of additional innovation is a common place in discussions over the diffusion of innovations (see for example Nelson & Winter, 1976; Mowery & Rosenberg, 1979). The lack of big industrial enterprises in Sofia however temporary annulled these possibilities on the first stage of waterworks building. In 1878 Sofia had just 3 factories and 238 craftsmen stores. The water for their needs was coming from small springs, spread around the city. The first industrial areas emerged during the last two decades of the 19th century, but the prevailing of small-scale production lasted until the second decade of the next century. The main part of the water was used not for industrial production but for watering domestic animals and for irrigation. The orchards, melon fields and gardens surrounded Sofia in a wide belt and it was common feature for the wealthy family to have at least one cow. Nevertheless, the general trend was agricultural activities and spaces to be pushed out of the normative frames of the city. Their share was constantly decreasing since 1878 – in 1888 the share of the agricultural buildings (barns, cattle-sheds, etc.) was 15,9% of all the buildings in the city, and

in 1900 - 2,5% (Georgiev, 1983:43). In the observed period the high rates of city growth made some peripheral districts central; nevertheless the neighbourhoods, that occurred to be on the boundaries of the city usually preserved their rural character. To have cattle for milk and a small garden for vegetables or cereals was an old tradition for the self-satisfying economy of the town family during the so called resurgence. The neighbourhoods succeed to preserve their importance and vitality in the capital city as well, serving as a first step of adaptation for many of the rural newcomers to urban life.

The new player on the scene – the medical units, despite the serious institutional support from the municipal authorities, did not succeed to cease the well established everyday activities. Almost until the end of the century they remained small sized, unpopular and the battle against the old neighbourhood witch-doctors, herbalists and barbers tended to be unsuccessful for a long time. Prohibitions and rules, which sanitary inspectors coined and imposed upon the craftsmen (especially on those, whose production was tied with treatment and trade with foodstuffs – bakers, butchers, boza-makers and so on) were often regarded as needless and as rendering the activity difficult. Even if the control over the craftsmen workshops was scrupulous enough, it was too hard to cause effective changes in the organization of production in such a work environment – the chief sanitary inspector of Sofia described this in a special report (Orahovats, 1899). In the very end of 19th century the workshops (which were also shops and stores) for foodstuffs were situated in small rooms, with bad ventilation, without ice-boxes for keeping the food, with the floorings and boards fouled and so on. For the masters and their apprentices it was usual to use the same rooms for sleeping as well (Orahovats, 1899:7-10). In this case the everyday people not only did not understand the grounds of the experts, but often did not recognize their competence as such. It would be too simplistic to say that this was because of peoples' ignorance. Actually, the witch-doctors and herbalists were also experts, but they were representatives of a different world. Their cognitive style was different, but this doesn't mean that it was irrational – the microbe of smallpox is no more real than Grandmother Smallpox (traditional Bulgarian folklore character). I will however not enter the realm of “symbolic efficiency” (Levi-Straws, 1989) right now because it will take me too far. Anyway, the case of Bulgarian hygiene inspectors shows again that conditions for the success are not inherent to the scientific discourse (Latour, 1994) and that the success of every linguistic practice lies down in its social context (Bourdieu, 1993a) (Bourdieu, 1993b).

Cultivating the needs

In this situation – heterogeneous environment, lack of technological traditions and financial funds, lack of significant agents interested in having water-supply system – the actor network of waterworks was transferred step by step.

And the first stage was transferring the need of waterworks. The municipal authorities made investments in installations, which – in contrast to scattered and free Ottoman fountains – were built as integrated underground pipelines. The water, which they provided, was payable only if the pipes supplied home fountain. The waterworks has never left the field of public good, but after been included in the sphere of market relations, they can be examined as a radical innovation. It turned out that the diffusion of the new product went too slow, so there had to be made an attempt its success to be produced through the model of translation. (Akrich, Callon & Latour, 1996). Otherwise the water-conduit just did not function. The building of basic water-supply system in a small north-eastern Bulgarian region can be taken as an example. This is a place, where people traditionally cultivated a great amount of grain and at the same time

running surface waters were lacking. The water that people drunk there was gathered in most primitive ways and its quality was horrible: that's why the local municipal authority invested in building wells with machine pumps. For the engineers' surprise, they did not receive the expected support from the local peasants: people were afraid that the new wells will lead to the loss of their lands' fertility ("Aridity of...", 1899:128-130). It was a paradox that the water-conduit has been received not as facility but as a treat – there was not found a proper form of its introduction. Even in Sofia, after building the modern waterworks, having really good water, the market of home water-supply installations was tiny for a long period of time. There were enough wealthy people, but they were "stingy": they preferred to draw water from the free public fountains, instead of having water at home with reasonable subscription and price.⁵ The main part of the Sofia population was compelled to bear heavy coppers from the fountain to home, walking along bad jolty streets, which in the summer provided clouds of dust and in the winter turned into mud swamps. The insufficient number of the fountains made the task harder: there were always queues and taking the other's place was a sure cause for scandal or even for a battle.

In this sense, the success of the waterworks as an innovation was not pre-determined even when the actor, introducing it to the society was the local administration. The inherited life-styles (especially in relation to household activities) were very inert; the habits were embedded in well established habitats built over a long time. The acceptance of the new infrastructure by the society could be only secured when interested in the object actors met each other (Akrich, Callon & Latour, 1996). The waterworks needed engineers and bankers, administrators and ordinary supporters. Winning the last for the cause however depended on how far the water-conduit could be adjusted – as a technology and as a symbolic world.

Adapting the water-supply installations

Western and particularly Parisian water-supply equipment was the most advanced in Europe in the second half of 19th. But the introduction of Sofia waterworks to the life of city inhabitants got slow, hard and with a lot of efforts. The success of the innovation depended on adapting the initial product to the needs of its potential users (Akrich, Callon & Latour, 1996) The waterworks of Sofia were adapted few times – with choosing pipes and executors. After taking the decision for investments the different way in which people interacted with the technologies turned out to be an unforeseen problem. The rapidly introduced European technologies were born in a different cultural context and one part of them appeared in the disguise of something known and self-evident.⁶ People who introduced them were often not the same who used them afterwards. At the same time there were not so many people who understood that the successful interaction needed a special layer of previous acquaintance with the agent which allows understanding and adequate reaction to a situation (Chalakov, 1998:204-209). The process of acquiring those special attitudes and skills however was slow and meant a long period of apprenticeship. Despite the support by all the state institutions, the building and the use of the waterworks was a problem for more than 10 years. It was not enough to say that the main goal was good drinking water. The problem was what good was good enough? The new status of Sofia as a capital did not allow accepting slimy water for drink anymore. So the new set of standards regarding the quality of water was set first. The pine pipes, which were inherited from the Ottoman technological culture, were made by hand from master-craftsmen and had aperture for cleaning at intervals. The debit and the amount of water, with the growth of Sofia, turned out to be far bellow from the new standards.⁷ That is why in 1890 the "Sveta Gora" spring into the Vitosha Mountain was piped. The additional debit of water however turned out to be insufficient and the request for more was raised again. Bulgaria had not its own industrial production of such elements, so

three different strategies for the waterworks emerged in this moment. The first was to order cast-iron pipes from Germany or France, despite of their higher price and of the remoteness of the supplier. The second was to order stoneware pipes from Romania or Greece. Nevertheless, the usefulness of the first did not seem self-evident. The alternative stoneware pipes were cheaper and could be delivered in a shorter period: in Romania and Greece there were already stoneware factories. Regarding the condition of the current roads, means of transport and state funds, this option could hardly be ignored. And the third strategy was to build a Bulgarian factory - be it for stoneware products or ironworks. In this period modern ironworks however were quite a big enterprise for the Bulgarian state. The stoneware production in a turn was predicted to be bad because of the lack of traditions. Waterworks were huge investment and the consequences had to be carefully maintained. The serious job started in the last decade of 19th century and immediately became a reason for intrigues on international level. According to the opposition newspapers, the second prince of Bulgaria, Ferdinand Saxe-Coburg Gotha, took the side of the Romanian stoneware factory and the Minister of Internal Affairs Grigor Nachovich – the side of the Greek factory.⁸ Nevertheless, the Prime Minister Stambolov succeeded to prevail upon his opponents and the cabinet confirmed a special loan for building a Bulgarian stoneware factory. In 1896 the half-opened stone channel between the springs and the new reservoirs was replaced by a stoneware pipeline. Due to bad connection of the pipes however a significant part of the water leaked outside and the danger of contamination grew up. In the same year epidemic of abdominal typhus broke out and tipped the balance again – this time in the direction of cast-iron pipes (Vasilev, 1989:71).

Changing the model of water use

The next problem in the interaction with the new agent arose as a consequence of the different standpoints upon what was to be the fair use of water. The Ottoman fountains were piped springs with marble slabs and piped spouts; they ran off constantly. In the eighties of 19th century Sofia municipality financed placing new public fountains with pneumatic pumps. The right technological usage of the new water installations was sanctioned with municipal order: the water could be used only for household necessities and the concrete operations had to be done at home. The result was a whole avalanche of fines for the citizens, who years on end did not understand and did not accept the new rules. Most of the breaches were using the water from the public fountains for great variety of well established everyday activities without permission of the municipality and without paying the tax.⁹ In other words, the attempt to introduce a new way of use of already known technology created a number of crises. They were connected not with ignorance and neglect of the rules, but with symbolic world, which surrounded the fountains. Water was always deemed to be a precious gift of God, for the benefit of all nature, and it was hoarded and harvested. Gaps were cut in grave stones to catch the rain for the birds, vessels were put out even for the despised dogs in the street, and wherever a spring rose or a stream ran the Turks built a fountain, usually fronted with a slab of marble carved with an inscription from the Koran (Lewis, 1971). This traditional concept entered the notions of Bulgarians as well – to build a fountain in folklore culture deemed to be highly moral, gratuitous gift or “hayyr” for the people who would use it. This was a strategy for gift exchange, which purpose was to overcome the mortality of the individual – the counter-gift was said to return as a Divine goodwill or through the collective memory for the donor. Besides, like the West-European medieval fountains, regarded as a special place, the Bulgarian ones played the role of important communal centres as well (Lipp, 2002:127-139). By turning waters in private municipal property, which

usage was not free anymore, the fountains left the economy of symbolic and entered the economy of material goods (Bourdieu, 1997:143-175).

That's why the efforts to make the innovation in question – waterworks - profitable were so hard: the needs of the people had to be cultivated and the symbolic meanings were to be neutralized for the purpose of market. The idea of reaching this goal even with the official administrative coercion floated into the air. The engineers' magazine in the very end of the century gave the proposal the number of public fountains to be lowered down just to force the wealthy citizens to join the water-supply system (Geshov, 1900:87). The temptation to act from the position of power was strong – there had to be created a whole market and corresponding needs on an empty place. Waterworks could make money; besides, the entrepreneur was a monopolist and an administrator at the same time. This meant that the municipality had two very strong trump-cards in its hands.

Public or communal structures

Despite the will of the municipal authorities to mark the line between public and private spheres, that was not so easy – the historical evidences of the time are full of situations, in which public property has been used as communal.¹⁰ Contradictory relations with modern public structures can be seen in other directions too. As a centre of beylerbey district in 15th -17th century, Sofia was settled with Muslims, who in the course of time gave the city its typical Islam look. However in the end of Ottoman governance as a social organization it was typical Balkan town, which was not equivalent to the typical Muslim settlement. The classic Islam town lacked strong municipal organization. The roots of this condition can be sought in two directions. The first is the close relation of the city as social form to the life of umma, the religious community. The basis of Islam is communal prayer, which demands fixed and permanent mosques. The whole rhythm of Muslim practices is designed around city dweller – the mosque with the pool of ablutions, the five daily prayers in response to the call of the muezzin and so on. That's why its social constraints and its spiritual demands make Islam an urban religion (De Planhol, 1970:447). In addition, the lay cities in Ottoman Empire as economic and territorial units were part of the timar estate system. Because the feudal lords lacked the inheritance rights to the land (and so lacked close ties with it) they could not consolidate in a legal and estate sense either as large feudal lords or as small ancestral nobility in the manner that was typical for the medieval European state (Todorov, 1983:82).

The second direction is the historical dynamics of the region that made the ethnic picture extremely heterogeneous. This can be seen in the spatial organization of the city. In the residential quarters, segregation of the different ethnic and religious groups was evident. These were everywhere split up into enclosed units, built up round an axial street which was closed at each end by the great gates, from which blind alleys ran on each side. Squares and unappropriated open spaces were correspondingly rare. All this did not assist circulation at all. The city of Levant, where the mosaic of cultures and confessions reaches its highest complexity was actually a conglomeration of separate cities founded on an ethnical or religious principle. Every community had its own rules, norms and local authorities – there were special persons, called muhtasibs, who were the connection between the community and the central authority – they reported for the births, deaths, marriages and so on. The Town as such was unknown in Muslim law. It enjoys no exceptional privileges, no particular rights.¹¹ In such social organization it was quite difficult to cultivate or transfer universalistic concept of the good as common for all (for the public as the common see Arendt, 1997). In a situation when the subject of all relations and opinions was the community (the

guild, the neighbourhood, the diocese, etc.) the idea of common good doesn't go beyond the boundaries of the particular group.

This heterogeneity however was the crucial point. The Ottoman authorities were aware that the Seriat was not universally applicable to all cases and styles of life so they allowed non-Muslims to govern their affairs according to their own customs. In Sofia, as in the most of the big Bulgarian cities, the authorities kept the old diocesan-neighbourhood organization of the population. During the time, the two characteristics divided and evolved to different organizations – neighbourhood-municipal and diocesan. The main feature of the first was that its activities concerned only the Bulgarian community and that it was subdued to Ottoman town authorities. The members of this unit bore the joint responsibility for the taxes and corvee. In its additional activities this communal municipality had a lot in common with the western municipal council - maintaining the schools and churches, supporting the guilds and production and, most of all, represent the community in its relations with the authorities. So when after the Liberation in 1878 Bulgarian state tried (as a main agent of modernization)¹² to infiltrate or even to impose capitalistic relations on the whole society, it met the strong resistance of these pre-modern structures.

Conclusion

After 1878 the relationship between Sofia inhabitants and their municipal council were changed and it can be seen clearly in waterworks case. West-European cities built such equipment for the needs of a completely shaped urban space; the administration of Sofia built waterworks to create a city. The different temps of transformations of habits and habitats (sedentary history) created series of crises of heterodoxy. To be embedded successfully in the established conditions, the waterworks needed either to be translated to the language and categories of the local population, or the whole environment to be changed to suits the waterworks best. At different places and stages these two solutions were applied separately, but the real functioning of the installations depended on the mutual adjustment.

Notes

¹ “The city water department had a corps of engineers who looked after the dams and reservoirs, supervising and repairing them and making sure that no one piped off water illegally or abused the facilities which the town provided, by, for example, irrigating orchards and gardens outside the prescribed hours during periods of comparative shortage. But their pride was to keep it flowing freely and solely for practical use, for the Turkish ideal of pleasure and repose was to sit beside moving, running, falling water” (Lewis, 1971:82-82)

² There is no doubt among the historians that Bulgarian cities owe their baths to the Turks. But among the fountain builders there were not only Turks, but Bulgarians too – they made a lot of fountains in the towns of Kazanlak, Kotel and other. (Gavrilova, 1999:177)

³ The traditional way of feeding in Bulgarian families was with meal, poured in a vessel, common for all. Everyone took his part from there with a spoon or dipped pieces of bread. The individual plate is almost unknown – it appeared after the Liberation in 1878 and initially it served for preserving the table cloth from stains. Its use can be deemed as widespread not until the end of the century, mainly in the high and middle class circles. The change depends not only upon adoption of new habits, but also upon industrial production of tin vessels, which are more solid than china, majolica and pottery. On

the other hand, the water pitcher, which served the whole family to drink from, remained in use until the second decade of 20th century (Georgiev, 1983:243).

- ⁴ In the centre of Sofia before 1878 there were several baths – most of them were for the Muslims, but there were also for Bulgarians, for Jews, for Armenians and others (Tahov, 1987:113).
- ⁵ In the end of 1907 the water supply-system covered 71% of the city streets, but only 27% of the buildings were connected with it (Georgiev, 1983:37)
- ⁶ In the 1880 the Municipality in Sofia bought special fire-extinguishing pumps for the Fire brigade. In the winter the Jewish neighbourhood Yuch Bunar burst out in flames. In that moment it turned out that the hoses of the new pumps were frozen, because there was no-one who could maintain them. The situation demanded first to defreeze the equipment and only then a real battle with the fire (Irecek, 1995a:37).
- ⁷ Defining standards as a procedure presupposes a preliminary work on calculation and unification of spaces, of the activities, of ways of doing things, of things, of individuals just to strike the average for all the units studied. The adoption of western standards for drawing water in Sofia seemed to be inevitable – it was hard to set own standards because the social sphere did not pass these preliminary stages. The very idea of such a calculation probably would not appear unless there were not big industrial users of water. The amount of water per capita in Sofia was fixed according to the average West-European standards (Geshov, 1899:61-70).
- ⁸ The question about the exact time of fixing the cast-iron pipes is a contradictory one – some researchers said that in 1885 there already were these pipes (Mirchev, 1979:130-132). I worked my arguments on the version of the historians from the Institute of History at the Bulgarian Academy of Sciences, who insist on year 1896 (Vasilev, 1989:71). However, I don't think that this changes the main thesis of the paper.
- ⁹ These activities were: slaking mud and lime for houses, wetting bricks, washing “different rags”, washing meat, vegetables, plates and pans, carriages, “dirty panniers”; also “propping up the handle” of the fountains; watering horses, cows, etc. (Capital City Municipality gazette, 1891:5-8)
- ¹⁰ In 1880 the Fire brigade commander bought a horse and started to feed him on the expenses of the Municipality. This behaviour provoked the authorities to forbid such things with a special order, because the “bey and pasha's habits had to be ended” (Mirchev, 1979:168). Irecek reports how he got the principal of The First Sofia Male high-school to breed hens in the classrooms. In another similar case they caught the guards of the National Assembly building to do the same. (Irecek, 1995b:289)
- ¹¹ The Muslim town naturally took his place in continuity with the toen of late antiquity, which, against the background of empires that became more and more centralized had lost almost all autonomy; and European communities came into being in under-organized states, a thing which, by comparison, the medieval Muslim world had never been (Cahen, 1970).
- ¹² See Dimitrov, 1995; and for the similar case Jimenez, 2004.

References

in Bulgarian (all titles of the books and articles have been translated from Bulgarian)

“Aridity of Deli-Orman, Russe Region” 1899. BIAD Journal (6-7): 128-130.

- Akrich, M., Callon, M. & Latour, B. 1996. What the Success of the Innovation Depends on? Part One: The Art of Attracting the Interest. *Sociological Problems* (4): 62-94.
- Akrich, M., Callon, M. & Latour, B. 2004. What the Success of the Innovation depends on? Part Two: The Art of Finding Good Spoke-persons. *Sociological Problems*, 3-4 (in print).
- Arendt, H. 1997. *Human Condition*. Sofia: Critique and Humanism Publishing House.
- Bourdieu, P. 1993a. *Introduction to Reflexive Anthropology*. Sofia: Critique and Humanism Publishing House.
- Bourdieu, P. 1993b. *Said things*, Sofia: "St. Kliment Ohridski" Sofia University Publishing Press.
- Bourdieu, P. 1997. *Economy of Symbolic goods*. In: Bourdieu, P. *Practical Reason*. Sofia: Critique and Humanism Publishing House.
- Capital City Municipality gazette 1891. (16-17).
- Dimitrov, G. 1995. *Bulgaria in the Helices of Modernization*. Sofia: "St. Kliment Ohridski" Sofia University Publishing Press.
- Elias, N. 1999. *The Civilizing Process, Volume 1*. Sofia: "St. Kliment Ohridski" Sofia University Publishing Press.
- Gavrilova, R. 1999. *The Wheel of Life. Everyday Life in Bulgarian Resurgence City*. Sofia: "St. Kliment Ohridski" Sofia University Publishing Press.
- Georgiev, G. 1983. *Sofia and Sofia Inhabitants 1878-1944*. Sofia: Science and Art Publishing House.
- Geshov, S. 1900. *The water-Supply System of Sofia*. *BIAD Journal* (4):61-70.
- Irechek, K. 1995b. *Bulgarian Ddiaries 1878-1884r., Volume 2*. Sofia: "Prof. Marin Drinov" Academy Publishing House.
- Irechek, K. 1995a. *Bulgarian Ddiaries 1878-1884r., Volume 1*. Sofia: "Prof. Marin Drinov" Academy Publishing House
- Latour, B. 1994. *We Have Never Been Modern*. Sofia: Critique and Humanism Publishing House.
- Levi-Strauss, K. 1989. *The Magician and his Magic*. *Savremennik*, (3):469-478.
- Lipp, K. 2002. *The Fountain*. In: Haupt, H.-G. (ed.) *Places of Everyday Life. Miniatures from European Culture History*. Sofia: Lik Publishing House.
- Mirchev, P. 1979. *A Book for Sofia*. Sofia: Otechestven Front Publishing House.
- Orahovats, P. 1899. *Sanitary Organization and Sanitary Conditions in the City of Sofia. Report Presented at the Meeting of City Council of Sofia on 13 february 1899*. Sofia: "St. Sofia" Publishing Press.
- Tchalakov, I. 1998. *Making a Hologram. A Book about the Scientists, the Light and about Their World*. Sofia: "Prof. Marin Drinov" Academy Publishing House.
- Vasilev, V. 1989. *Water-Supply System of Sofia (1878-1944)*. In: Hadjinikolov, V., Georgiev, G., & Mateev, B.: *Sofia through the centuries, Volume 2*. Sofia: Institute of History, "Prof. Marin Drinov" Academy Publishing House.
- Tahov, G. 1987. *From Sredets to Sofia*. Sofia: Otechestven Front Publishing House.

in English

- Cahen, C. 1970. Economy, Society, Institutions. In: Holt, P., Lambton, A. & Lewis, B. (eds.), Cambridge History of Islam, Volume 2, Cambridge University Press.
- De Planhol, X. 1970. The Geographical Settings. In: Holt, P., Lambton, A. & Lewis, B. (eds.), Cambridge History of Islam, Volume 2, Cambridge University Press.
- Jimenez, C. 2004. Popular organizing for public services – Residents Modernize Morelia, Mexico 1880-1920. *Journal of Urban History* 30 (4):495-518.
- Lewis, R. 1971. *Everyday life in Ottoman Empire*. London: B.T. Batsford.
- Mowery, D. & Rosenberg, N. 1979. The influence of market demand upon innovation: a critical review of some recent empirical studies. *Research Policy* 8 (2):102-153.
- Nielson, R. & Winter, S. 1976. In research of useful theory of innovation. *Research Policy* (6):2-25
- Todorov, N. 1983. *The Balkan City XV-XIX century*. Washington: University of Washington Press.

