# "SHRINKING CITY" – TERM TO BE VERIFIED?

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**Abstract.** City crisis has been a subject of urban debates in both Anglo-Saxon and German space. "Shrinking city" (schrumpfende Stadt) term was developed in Germany and means a persistent urban crisis which is characterized by depopulation and worsening economic conditions. Nowadays, often, the only determinant for calling a city as shrinking is a population decrease. Such understanding might be misleading. In the Author's view age structure of population is at least as important for the city economic performance and physical development as its quantitative change.

**Key words:** urban crisis, "urban decline", "shrinking city", cities' depopulation, Eastern Germany, demographic structure, aging, "shrinking society"

#### INTRODUCTION

"Shrinking city" term gained in popularity after year 2000, when a report on vacancies in Eastern Germany (Pfeiffer, Simons and Porsch 2000) was published. Since then it has started to be applied to cities worldwide (Oswalt and Rieniets 2006) and particularly to those located in Central and Eastern Europe (Mykhenko and Turok 2007).

"Shrinking city" term is nowadays often assigned to cities losing inhabitants. Depopulation is its only determinant in many publications. This paper aims to show that this understanding of the "shrinking city" term is improper. The paper consists of two parts. The first one describes how the term "shrinking city" developed and evolved. Two debates on urban crisis: Anglo-Saxon and German are presented, as well as, differences between them. The second part focuses on the process of aging which has been neglected in the research on "shrinking city". Age structure of cities in Eastern Germany and of cities in Poland, reported as shrinking, are presented. Finally, conclusions are drawn in the light of the proposed discussion.

#### **DEBATES ON URBAN CRISIS**

Throughout the centuries urban crisis was present in the history of cities development. Some cities were emerging or continued to grow intensively while others faced population decline. Such cities either disappeared completely like Troy or, after a period of crisis, were starting to grow again like Rome. There is also possibility to give many other examples, not such well known ones.

Wars, plagues, fire and natural catastrophes used to cause urban crisis in the past. In modern times, erosion of the city economic basis started to be its frequent reason as well. People started to leave cities where they did not have a job anymore. This happened when the products offered by a town or city were not needed, or they could not be produced, for instance because of materials' shortage.

More recently, city economic basis has been highly influenced by global changes and new technologies. As industrialization meant a rapid growth of cities, deindustrialization caused a reversal of the process. Cities affected by the heavy industry crisis started to lose inhabitants. This process was first observed in UK where industrialization started the earliest. Already in the 1950s cities in UK started to lose inhabitants and suffered from severe economic crisis. In Western Germany cities' depopulation has been noted in the Ruhr Area since 1965.

In both languages there were developed terms describing the state of cities affected by deindustrialization. In English it is "urban decline" (also quite often: "urban decay") whereas in German it is "shrinking city" (schrumpfende Stadt). Both these terms tend to be nowadays presented as synonymous, which is, in the Author's view, misleading. In the following part, the debate on urban crisis in Anglo-Saxonspace will be briefly presented. Subsequently, the debate in Germany will be presented in a more detailed manner.

## "URBAN DECLINE"—ANGLO-SAXON URBAN DEBATE

In US and UK cities suffered from severe crisis and depopulated particularly intensively in the 1970s. However, afterwards a general city revival started. Consequently, the peak of depopulation and job losses in cities of US and UK was 30 years ago. It should not be surprising then that the "urban decline" is not a dominant issue in the current urban Anglo-Saxondebate. Nowadays, it is the issue of "city resurgence" which is most often discussed. It means an urban regeneration after a period of crisis. This implies that "urban decline" refers to a phase in the city development, after which growth is again possible.

Depopulation in the Anglo-Saxondebate is not seen as something very negative. Resurgence is being explained as growth but not necessarily in all terms. It can take the form of a slowing rate of population loss, accompanied by rising real incomes and house prices (Glaeser and Gottlieb 2006). As Saskia Sassen writes, the depopulation of big cities has been misinterpreted and oversold: "Apartments that once held families now hold an investment banker. And the space required by that single banker for offices, restaurants and shops can be two, three, four times more than that required by

the family she or he replaces" (Sassen 2006)

Current Anglo-Saxon urban debate can be regarded as having a positive character. The management of growth is the main task of urban planning, and the decrease in population number is not posing any major problem.

## "SHRINKING CITY"—GERMAN URBAN DEBATE

On the contrary, the urban debate in Germany is rather negatively connoted. "Shrinking city" is one of the main issues, which is being nowadays discussed.

Unlike currently presented, shrinking cities did not appear in Germany only after the year 2000. The problems of cities losing inhabitants with worsening economic conditions were discussed long before the German Reunification, in both German States. The debate can be divided into four phases:

#### 1ST PHASE: EMERGENCE OF THE TERM

In the Western Germany cities started to depopulate in 1965. In 1975 all biggest cities with more than 0.5 million inhabitants (including Munich) were losing inhabitants (Häußermann and Siebel 1987, pp. 27, 81). Moreover, in the 1970s the Western German population started to decline and there were made very dramatic demographic projections. At the end of the 1980s publications of sociologists Hartmut Häußermann and Waler Siebel introduce the notion of a "shrinking city" (schrumpfende Stadt) (Häußermann and Siebel 1987), (Häußermann and Siebel 1988). They explain it as a model of urban development where urban crisis is irreversible (Häußermann and Siebel 1987, pp. 118, 138).

German Democratic Republic (GDR) started to lose inhabitants already in the 1960s (GUS 1977). However, the urban crisis varied a lot in both German states. Unlike in Western Germany, in GDR small towns were mostly affected by depopulation. The problem began to be officially discussed at the end of the 1980s when it was stated that it is not any more possible to ignore the problems of small towns in GDR (Hannemann 2004, p. 62). However, some big cities had to face with population decrease as well. A good example is Leipzig which throughout the socialist regime period was losing inhabitants.

#### 2ND PHASE: CONCEALMENT (THE 1990S)

In the 1990s the issue of "shrinking cities" remained a taboo (Grossmann 2007). This concealment had several reasons.

At the end of the 1980s population of Western Germany started to rushly grow again. It was caused by very high immigration rates. Only in year 1992 the migration balance accounted to over 600,000 persons (Eisenmenger, Pötzsch, and Sommer 2006). The immigrants were settling down mostly in big cities. That is why their population number started to increase again.

Moreover, in the 1990s western German cities profited from the inflow of people, mostly young and well educated, from former GDR. However, this high outmi-

gration from Eastern Germany had a devastating effect on the development of cities there.

A pararelly observed urban revival in UK and US gave impression that the same is happening in Germany. In fact, growing inhabitants number in cities of Western Germany and a high construction activity in cities of former GDR could have been interpreted as indices for the city regeneration.

#### 3RD PHASE: REAPPEARANCE, AFTER 2000

Despite the fact that at the end of the 1980s in Eastern Germany there was an oversupply on the housing stock, after Reunification a high deficit on dwellings and other real estates was expected. As a consequence there was an intensive construction boom. However, these expectations were overestimated, partially, due to deep population decline that was not envisaged (it is nowadays estimated that 1.5 million people left Eastern Germany after 1989). Consequently, the construction boom caused a "wasted overproduction" (Pfeiffer 2005) which was particularly evident on the residential real estate market.

In 2000 a report on vacancies in Eastern Germany was published. It stated that over 1 million flats was unoccupied, with a growing tendency (Pfeiffer, Simons, and Porsch 2000, p. 19). The publication of this report reopened the debate on shrinking cities.

In the current research studies the irreversibility of the crisis in the model of shrinking city is confirmed (Glock 2006, p. 13), (Hannemann 2004, p. 7). "Shrinking" of cities concerns a permanent loss of inhabitants as well as continuously decreasing economic dynamic in many regions of Germany, Europe and the world" (Haller 2004).

#### 4TH PHASE: INTERNATIONALIZATION OF THE "SHRINKING CITY" TERM:

The quotation above implies not only the that the "shrinking city" means an irreversible crisis but also that this phenomenon can be found all over the world. Such opinion is shared in many recent publications (Oswalt and Rieniets 2006), (Mykhenko and Turok 2007), (DGIPU 2007). "Shrinking city" term is applied there to depopulating cities: "The term 'shrinking city' first and foremost describes a symptom: population loss. A wide variety of processes and causes can be hidden behind this symptom" (Oswalt and Rieniets 2006, p. 6). And second "Shrinking cities are those characterized by a decreasing population (...)" (Mykhenko and Turok 2007, p. 24).

Economic performance of cities described there as shrinking is not investigated at all due to lack of sufficient data. It is assumed that depopulation goes parallel with worsening economic conditions. Nonetheless, various studies prove that an economic growth may exist by a decreasing population (Beauregard 1993), (Glaeser and Gottlieb 2006), or may be even fuelled by it (Kaufmann 2005).

#### INTERIM CONCLUSIONS

German term "shrinking city" and Anglo-Saxon term "urban decline" differ substantially. Although both terms refer to a city with decreasing population and worsening

economic conditions, they vary in duration of the crisis. "Urban decline" describes a phase in the urban development after which growth anew is taking place. Contrary, "shrinking city" is a model of urban development where crisis is persistent and irreversible. This basic feature of the German term is recently often being forgotten.

In some latest publications "shrinking city" equals depopulating city. It is applied to cities worldwide without sufficient data analyses which would, for instance, confirm the economic crisis. Moreover, as the current urban Anglo-Saxon debate shows, depopulation is not necessarily a sign of a city crisis. The "shrinking city" term starts to be simplified and consequently overused.

The subsequent part of the paper focuses on the aging process. It is assumed that for the city development age structure of population is at least as important as its quantitative change.

#### **EMPIRICAL EXAMPLES**

The demographic problems in Germany are nowadays widely discussed not only among academics and policy makers but also by the public. This high interest in demographic issues may be explained by the fact that Germany is demographically the oldest country in Europe and it is described as "a pioneer of the lowest fertility" (Kaufmann 2005).

The following table presents the demographic development of Poland and GDR in time 1960–1976.

nation 1. Topulation development in ODF and Totalia in period 1500-1570									
	GDR			Poland					
	1960	1970	1976	1960	1970	1976			
Population (thousand)	17,241	17,058	16,800	29,561	32,526	34,362			
Increase in %			-2.56%			16.24%			
Births per 1000 inhabitants	17.0	13.9	10.8	22.6	16.6	19.5			
Deaths per 1000 inhabitants	13.6	14.1	14.3	7.6	8.1	8.8			
Natural increase per 1000 inhabitants	3.4	-0.2	-3.5	15.0	8.5	10.7			

Table 1. Population development in GDR and Poland in period 1960–1976

Source: (GUS, 1977)

In the given time frames population of GDR decreased by 2.6% whereas Polish population grew by over 16.2%. This divergent demographic development is explained by the very high death rate in GDR since the 1960s. Together with constantly lowering birth rate it resulted in negative natural increase. At the same time Polish birth rate exceeded over twice the death rate. Therefore the natural increase in Poland was very high.

Already under socialist regime the process of aging in Eastern Germany was very advanced. In 1975 16.3 % of population in GDR was aged over 65 years whereas in Poland this share equaled to only 9.6% (GUS, 1977).

Western Germany, which had similar values of low natural increase, could compensate the population loss by high immigration. Contrary, GDR was always an emigration country.

The advanced process of aging observed in GDR accelerated after 1989. The fall of the Wall meant for the Eastern Germans the right to move freely. According to current estimations, 1.5 million people took advantage of this opportunity. The majority of them were young. This out-migration caused that the birth rate decreased drastically. As a result, today Eastern Germany is demographically older than the western part of the country.

The following table presents demographic data for cities in Eastern Germany (Kreisfreie Städte) and some Polish cities described as shrinking in recent publications. It is important to note that post-productive age is differently defined in both countries. In Poland in this age group there are calculated men aged over 65 years and women aged over 60 years. In Germany age over 65 is for both genders post-productive. Comparing directly Polish and German post-productive age groups leads to wrong conclusions. Therefore, it was decided to present the data for German and Polish cities by using both, German and Polish definitions of post-productive age. Post-productive age according to German statistics is presented in the 5th column, whereas according to Polish statistics is the 7th one.

The data concerning 25 Eastern German cities were acquired from the online data-base of the German Federal Statistical Office (<www.regionalstatistik.de>). All Eastern Germancities defined as "kreisfreie Städte" with exception of Dessau are presented. In the group of Polish cities there are 14 cities from Upper Silesian Conurbation and Łódź. These cities undergo a depopulation process and are called in current publications as "shrinking" (Oswalt and Rieniets 2006; Mykhenko and Turok 2007; DGIPU 2007).

Table 2. Populations change 1995–2007 and age structure in 2007 of cities in Eastern Germany and reported as "shrinking" cities in Poland

Age groups in % in 2007									
	Population change (%) 1995–2007	Population number 2007	0–14	15-64	65+	15–64 men 15–59 women	65+ men 60+ women		
Eastern German cities:									
Brandenburg an der Havel	-15.7	72,954	9.2	65.6	25.2	62.6	28.3		
Cottbus	-17.3	102,811	9.2	69.3	21.4	66.5	24.3		
Frankfurt (Oder)	-23.8	61,969	9.8	68.7	21.5	66.1	24.2		
Potsdam	8.6	149,613	11.8	69.0	19.2	66.5	21.7		
Greifswald	-13.5	53,845	10.0	71.3	18.7	69.1	20.9		
Neubrandenburg	-17.9	66,735	9.9	69.7	20.4	67.2	22.9		
Rostock	-13.4	200,413	9.4	68.2	22.4	65.5	25.1		

Schwerin	-17.8	95,855	10.1	67.2	22.7	64.3	25.6
Stralsund	-13.1	58,027	9.5	66.1	24.4	63.3	27.2
Wismar	-11.5	45,012	9.1	66.7	24.1	64.0	26.9
Chemnitz	-9.5	244,951	9.6	64.7	25.7	61.2	29.2
Plauen	-0.8	67,613	10.3	64.6	25.1	61.3	28.4
Zwickau	-7.2	95,841	9.6	65.4	25.1	62.0	28.4
Dresden	7.0	507,513	11.0	67.5	21.5	64.6	24.3
Görlitz	-15.2	56,724	10.4	62.7	26.9	59.5	30.1
Hoyerswerda,	-32.9	40,294	8.2	63.2	28.5	59.5	32.2
Leipzig	6.4	510,512	10.2	67.7	22.1	64.8	24.9
Halle (Saale)	-17.6	234,295	10.4	67.2	22.4	64.0	25.6
Magdeburg	-12.6	230,140	9.7	67.3	22.9	64.2	26.0
Erfurt	-4.7	202,929	10.8	69.0	20.2	66.1	23.1
Gera	-18.2	101,618	9.0	66.6	24.3	63.5	27.5
Jena	0.7	102,752	10.5	70.0	19.6	67.1	22.5
Suhl	-23.3	41,015	8.2	68.1	23.6	64.4	27.3
Weimar	3.6	64,720	11.2	68.5	20.3	65.8	23.0
Eisenach	-4.7	43,308	10.5	65.4	24.1	62.4	27.1
Polish cities:							
Bytom (since 1998) <sup>1</sup>	-9.8	185,841	13.6	71.6	14.8	68.7	17.7
Piekary Śląskie	-11.7	59,223	13.5	71.7	14.8	69.2	17.3
Gliwice	-7.0	194,426	12.6	72.9	14.4	70.2	17.1
Zabrze	-5.6	189,426	13.6	72.5	14.0	70.0	16.4
Chorzów	-9.2	113,660	14.1	69.8	16.0	66.8	19.1
Katowice	-10.3	310,751	12.3	71.6	16.1	68.4	19.3
Mysłowice	-5.2	75,096	14.1	73.6	12.3	71.1	14.8
Ruda Śląska	-12.3	145,068	14.7	72.3	13.0	69.6	15.6
Siemianowice Śląskie	-8.0	71,868	13.2	72.5	14.3	69.6	17.2
Świętochłowice	-8.3	54,745	14.3	72.2	13.5	69.5	16.2
Dąbrowa Górnicza	0.8	129,143	12.1	75.2	12.7	72.5	15.4
Jaworzno	-2.2	95,937	13.6	72.6	13.8	70.0	16.4
Sosnowiec	-9.8	222,478	11.6	74.6	13.9	71.5	16.9
Tychy	-2.3	130,427	13.1	75.2	11.7	72.9	14.0
Łódź	-8.5	753,192	11.2	71.8	16.9	68.4	20.4
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Source: Own presentation based on data acquired from: <www.regionalstatistik.de> and <www.stat.gov.pl>.

 $<sup>^1</sup>$  In 1998 a part of Bytom called Radzionków separated. Bytom lost 18,156 inhabitants "overnight". This depopulation was due to administrative decision. Therefore it is not presented in the table.

The share of people aged between 0–14 years oscillates in Eastern German cities around 10% (on average 9.9%). In 13 out of 25 cities this share is lower than 10%. In Suhl and Hoyerswerda it amounts to only 8.2%. In these two cities depopulation was the highest. Hoyerswerda lost between 1995–2007 32.9% whereas Suhl 23.3% of their inhabitants. The highest share of the young can be found in Potsdam with 11.8%.

The share of young people in Postdam (11.8%) is only slightly higher than the lowest share of people in this age group among Polish cities that can be found in Łódź (11.2%). Among Polish cites, paradoxically, the highest share of the young is found in Ruda Śląska (14.7%) which is the most depopulating city in the presented group (population loss -12.3% between 1995–2007). The average share of people aged between 0–14 years, in the presented Polish cities, is 13.2%.

The process of aging is in Eastern German cities very advanced. In Hoyerswerda in 2007, 28.5 % of population was aged over 65 years. In five other cities presented in the table this share is higher than 25%. The lowest share can be found in: Greifswald 18.7%, Potsdam 19.2% and in Jena 19.6%. In all other presented cities in Eastern Germany this share is higher than 20%.

By contrast, the share of people aged over 65 in the Polish reported as "shrinking" cities is much lower. In Łódź where this share is the highest, it accounts to only 16.9%. This value is much lower than the share that can be found in the demographically youngest cities in Eastern Germany.

The unawareness of the 5 years difference in definition of post-productive age between German and Polish statistics may lead to wrong conclusions. Łódź has according to Polish statistics 20.4 % of population in post-productive age (65+ years men and 60+ years women). This share looks very similarly to that given by the German statistics for Weimar (65+ years men and women) = 20.3%. However, comparable shares of people in post-productive age in Łódź and Weimar are: 16.9% and 20.3% according to German statistics, according to Polish one: 20.4% and 23.0%.

Table 2 shows clearly that Polish cities, even those depopulating and reported as "shrinking" are demographically much younger than cities in Eastern Germany. It is worth noting that in Mysłowice, Ruda Śląska, Świętochłowice and Tychy the share of those aged 0–14 is higher than the share of those aged over 65 years. Such a demographic composition is not to be found in any Eastern German town or city.

The demographic youth of the Polish cities may explain why the existing since the beginning of the 1990s depopulation in many of them is not treated as a threat. So far in Poland there is no debate on urban crisis. The current debate on urban development concentrates on steering the urban growth and counteracting chaotic sprawl. The attitude towards depopulation in Poland resembles rather the Anglo-Saxon than the German.

The Author assumes that for the city development age structure of population is at least as important as its quantitative change.

The importance of age structure and its influence on the economic and social development on a state level is the subject of Franz Xaver Kaufmann's "Schrumpfende Gesellschaft. Vom Bevölkerungsrückgang und seinen Folgen" (Shrinking society. On population decrease and its consequences) published in 2005. Kaufmann analysis thoroughly the German demographic development. He notes that Germany is nowadays demographically the oldest country in Europe and that it is a "pioneer of the lowest fertility". No other European country has had birth rate on a low level (1.3) since such a long time (end of the 1960s).

Kaufmann differentiates between both terms used in the title: "shrinking" and "decrease". He argues that the latter presents one dimensional change and that it is needed as a first orientation. Shrinking is defined by him as a multidimensional process, where some growth is possible, but a general decline is prevailing (Kaufmann 2005, pp. 19, 22).

In Kaufmann's view the greatest problem of a German population is not a growing number of elderly, but a very low birth rate. It has remained on a very low level since the 1960s (approx. 1.3). Basing on such works as of Felderer and Sauga he states that in a short time perspective, defined as the period of two generations, the economic advantages of decrease in births dominate, whereas in a long term perspective negative consequences start to prevail (Kaufmann 2005, p. 68). In other words, low birth rate boosts the economic development, at first. "As a consequence of an abrupt decrease in births between 1965–1975 the expenditures on children upbringing fell down. At the same time the part of people in the working age increased at first, while old age dependency ratio did not rise. This advantageous phase comes nowadays for Germany to the end" (Kaufmann 2005, p. 212).

Kaufmann suggests that German population becomes a shrinking society. He notes that population in age 20–65 is in Germany decreasing faster than the overall population number (Kaufmann 2005, p. 46). By contrast in Poland this age group is increasing despite the overall population decrease.

Kaufmann's findings on shrinking society, where population age structure does not ease the economic development may be very beneficial by analyzing "shrinking cities". Therefore not only a decrease in the population number should be taken into account but also its demographic composition.

Studies analyzing the influence of the old age dependency ratio in cities on their economic development are unfortunately missing. It might be assumed that a city with the share of people aged over 65 years at 25% is less competitive than the one where this share is around 15%. In a city where ñ of population is aged over 65 years a large part of those in productive age is working by helping and supporting the elderly people. These are not only members of medical staff like doctors or nurses but also professionals offering daily care.

The observation of the appearance of cities in Eastern Germany and Poland proves that age structure of the city's population is well reflected in the physical space. The needs of the younger population are different than those of the older. In older

population basic investments like flats, social and technical infrastructure etc. already exist. The more a population gets older and decreases the lower is the demand. There can appear an oversupply of these products, as in case of Eastern German cities where the level of housing vacancies is very high. Cases of schools or kindergartens being closed down due to lack of demand are not rare. The problems of underused technical infrastructure like water supply— or sewage systems are immense. Therefore, city planning measures in Eastern Germany are aimed at counteracting these negative phenomena. Stadtumbau program is one of the responses of the German State aimed at diminishing them. In this program 230,000 flats were already demolished in the Eastern German cities.

This development contrast sharply with that observed in Poland. In Poland these basic needs, like flats or social infrastructure, are still not saturated. The shortage on dwellings is estimated for about 1.5 million units. On the city level this means that generally urban planning policy oriented at growth is to be kept. Even depopulating cities in Poland report a high shortage on dwellings. The prices on the residential real estate market in these cities were growing substantially in recent years. This is not the case of Eastern German depopulating cities where they are stagnating at best.

# **CONCLUSIONS**

Urban crisis became an important issue in the urban debate with the beginning of deindustrialization process. Anglo-Saxon term "urban decline" and German term "shrinking city" tend to be presented as synonymous. In fact, they vary a lot. The former describes a phase in the urban development after which growth anew is possible, whereas the latter refers to the irreversible, persistent urban crisis.

It has to be noted that the "shrinking city" term undergoes a certain evolution. Its founders sociologists Hartmut Häußermann and Walter Siebel saw its causes in the economic changes arousing from deindustrialisation. It is worth noting that at the end of the 1980s in Western Germany aging and age structure shifts were not seen as problematic for the urban development (Gatzweiler and Strubelt 1988). 20 years later advanced aging and changes in the age structure are easily visible in cities of Eastern Germany. It might be assumed that the existing age structure of population, as for instance in Hoyerswerda, makes the economic recovery hardly possible.

The currently observed interpretation of the "shrinking city" term as a depopulating city is misleading. It is being arbitrary applied to cities worldwide without any analysis of their economy. Moreover, city depopulation is not necessarily a sign of a crisis. A more proper demographic determinant for a "shrinking city" than a population decrease is "shrinking society". Advanced aging, very high old age dependency ratio and a low number of the young constitute a shrinking society. These characteristic of demographic structure are to be proved before calling a city "shrinking".

Depopulation of towns and cities already existed in GDR. This negative process exacerbated in the 1990s. The "shrinking city" term was reinvented due to very specific demographic and urban development in Eastern Germany after Reunification. It varied a lot from that observed in Poland, and from other countries in Central and Eastern Europe.

Undoubtedly, it is necessary to develop comprehensive terms in the integrating Europe, which would ease understanding and steering the spatial processes. However, in order to avoid misunderstanding and incorrect decisions, these terms should be formed very cautiously. "Shrinking city" term still requires formation of appropriate indicators which would prove that the urban crisis is persistent. Moreover, it is very negatively connoted. Therefore its unjustified usage, based only on the fact of depopulation, may negatively affect the image of a city. If its usage is not convincingly proved, it is, in the Author's view, more proper to use the "urban decline" term.

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