

LINEAR URBAN DEVELOPMENT IN A COASTAL TOWN: CHRONOLOGICAL REPRESENTATION OF URBAN PLANS OF BUDVA, MONTENEGRO FROM 1961. TO 2017.

DOI: https://doi.org/10.18485/arh_pt.2025.10.ch45

_ Milena Bismiljak

PhD student, Faculty of Architecture –
University of Belgrade, Belgrade, Serbia,
milenabismiljak@gmail.com, [0009-0004-2173-8159]

_ Jelena Marić

PhD, Assistant Professor, Faculty of
Architecture – University of Belgrade, Belgrade, Serbia,
jelena.maric@arh.bg.ac.rs, [0000-0002-3906-850X]

_ Eva Vaništa Lazarević

PhD, Full Professor, Faculty of Architecture –
University of Belgrade, Belgrade, Serbia,
eva.vanistalazarevic@gmail.com, [0000-0002-4954-3108]

ABSTRACT

Budva is a coastal town located in south of Montenegro. Both man-made and natural characteristics of the city resulted in its' linear development along the coast. Urban development focused on exploitation of the coastal resources, with the main agenda for developing tourism. Urban planning in Budva dates back to 1961, when the development started, focusing only on the coastline due to the lack of recognition of mountainous hinterland potential. This paper aims to show the urban development of Budva from 1961. to 2017, showing the abovementioned linear development through three periods of time: (1) from 1961 to 1979.; (2) from 1979. to 1987.; and (3) from 1987. to 2017. The main goal of this research is to analyze the conceptual ideas of urban development in each of the periods and to identify the outcomes. Both primary and secondary resources were used in the theoretical phase of the research, with a focus on the analysis of examples regarding the urban development of coastal towns. Also, extensive research included a detailed review of the chronicle of Budva's urban plans from 1961. to 2017, with a graphical representation of development morphogenesis. Research results present the overall consequences of linear and centralized urban development using the example of the Mediterranean coastal town in the Adriatic Sea. Furthermore, it has been recognized that this is a constant part of every strategic approach to urban planning. What does change are agendas that changed the approach in urban planning: (1) a social economic growth in Ex. Yugoslavia; (2) urban decentralization and expansion to mountainous hinterland after the earthquake; (3) rapid urban growth through private investment. The main contribution of the paper is in the field of urban development policies regarding coastal areas.

KEYWORDS _ *Urban planning, linear development, coastal town, urban planning documentation*

INTRODUCTION

The radical theory of the line city, bases of which were set in the 19th century by a Spanish urban planner, Arturo Soria y Mata, who believed that industrialisation must be followed by modernized planning, in which one puts a transportation line as a centre. It found its use mostly in elongated and narrow spaces. These spaces were usually set between mountains and a body of water.¹ As the theory was widely accepted and proved efficient in previously mentioned spaces, it was found to be used in the urban development of coastal towns in the Adriatic Sea of the Mediterranean.² Due to the specific geographical predispositions of those towns, Harris & Ullman's proposal of multiple centres was accompanied by them.³

It has been documented that in many towns of the Mediterranean, specifically the Adriatic sea, the most developed part is the coastal area which would leave mountainous hinterland neglected⁴, thus giving them linear predisposition. The reason for this is the fact that these towns mostly focused on development of tourism which focused on one resource – the sea.⁵

This research paper aims to show urban development of one such town. The town in question is called Budva and is settled on the coast of Montenegro. The urban development started in 1961. and lasts to this day.⁶ However, the most recent planning documentation that has been documented for the purpose of writing this paper was created in 2017. Which is enough to give us the opportunity to chronologically analyze the development of the coastal town during three different periods of time which were triggered by different natural or socio-economic developments. Three major developmental agendas were distinguished after analyzing planning documentation: (1) a social economic growth in Ex. Yugoslavia; (2) urban decentralization and expansion to mountainous hinterland after the earthquake; (3) rapid urban growth through private investment. Each of these were beacons of visual change of the town of Budva. However, one thing was a constant – only coastal area was continually developing in a line.

The main goal of this paper is to show how different socio-economic and political agendas change or stop the development of a coastal town with the agenda of understanding the stoicism in urban development of Budva. Specific goal of this paper is to give chronologically documented planning documentation in the span of 56 years. This goal will give us an insight in practical implementation of linear urban development on the example of Budva.

The scientific contribution of this research paper is reflected in chronological representation of urban development of a coastal town in comparison to theoretical framework of linear city. The goal of this comparison is to understand the reason behind occurrence of centralization in coastal towns. The purpose of understanding this is to set theoretical foothold for decentralization by including the mountainous hinterland in urban planning of coastal towns of Adriatic sea in the Mediterranean.

¹ Memišević, Tijana Tufek. "A Linear City Development Under Contemporary Determinants." *Środowisko Mieszkaniowe/Housing Environment*, vol. 14, 2015, pp. 190–195.

² Apostolos Lagarias, Ioannis Zacharakis, and Anastasia Stratigea. 2022. Assessing Coastal Urban Sprawl and the "Linear City Model" in the Mediterranean – The Corinthian Bay Example. In *Computational Science and Its Applications – ICCSA 2022 Workshops: Malaga, Spain, July 4–7, 2022, Proceedings, Part II*. Springer-Verlag, Berlin, Heidelberg, 439–456. https://doi.org/10.1007/978-3-031-10562-3_31

³ Harris, C. D., & Ullman, E. L. (1945). The Nature of Cities. The ANNALS of the American Academy of Political and Social Science, 242(1), 7-17. <https://doi.org/10.1177/000271624524200103> (Original work published 1945)

⁴ Sala, M., Trombadore, A., Fantacci, L. (2019). The Intangible Resources of Vernacular Architecture for the Development of a Green and Circular Economy. In: Sayigh, A. (eds) *Sustainable Vernacular Architecture*. Innovative Renewable Energy. Springer, Cham. https://doi.org/10.1007/978-3-030-06185-2_12

⁵ Lagarias, A., Stratigea, A. Coastalization patterns in the Mediterranean: a spatiotemporal analysis of coastal urban sprawl in tourism destination areas. *GeoJournal* 88, 2529–2552 (2023). <https://doi.org/10.1007/s10708-022-10756-8>

⁶ Revision of the general urban plan of Budva; Draft plan; Book 1: Analytical Program Basics General Urban Plan of the Coastal Zone of the Municipality of Budva for the Sector: Budva-Bečić

THEORETICAL FRAMEWORK

The concept of a linear city started in the 19th century, specifically the year 1882 when Spanish urban planner Arturo Soria y Mata (1844-1920) recognized limitations to traditional centralized urban planning, which required the creation of an urban centre and periphery.⁷ He insisted that the modernization of urban planning should include construction of roads, railways, infrastructure etc., which would be in accordance to modernisation of infrastructure. He also argued that it should be set along a line with the prospect of attaching other components of the city along the length of this line.⁸ In his opinion, this model of planning would make cities more humane with the result of bringing people closer to nature while keeping the individualism of users in suburban areas and allowing for green spaces along street lines and in courtyards in urban areas. His main argument was that the main form of public transport must determine form of city development.⁹

This concept was widely accepted at the beginning of 20th century and both Soviet and Bauhaus architects and planners included it in their urban planning and envisioning of a future city. (A V Antyufeev and O A Antyufeeva) The reason for this was having to meet new standards due to modernization affected by industrialization. It was a perfect solution to a new life standard, which was the use of motor vehicles. (A V Antyufeev and O A Antyufeeva) Therefore, the line city was improved and the concept of Strip city was born. It consists of parallel stripes which, in function, present the lateral development of the city while leaving the main corridor (the line) as the main artery of development.

It was also used to solve narrow spaces such as those around rivers and naturally limited spaces by mountains. One of the best-known examples of this type of planning is Volgograd which was settled alongside the river Volga¹⁰. In the case of this research the before-mentioned theory is connected to urban development coastal towns of the Mediterranean, with the specific example of Budva in Montenegro. (e.g. Figure 1, 2 in "Discussion")

However, scholars argue that there are also cons to this type of urban development.¹¹

This concept, with its limitless length, left towns without prioritized centres. Anywhere along the line could a centre be developed. This is where a multi-centre concept, first proposed by Harris & Ullman (1945) in their paper "The nature of cities", comes in hand. They argued that the development of several centres with different uses would allow the dispersion of the populace and development in different parts of towns simultaneously.¹² Moreover, they insist that due to the longitudinal predisposition of transportation, clutters can be developed in intersections along the main road.

After all of the previously mentioned concepts morphed into one perfect model of city development, it found its place in the urban development of coastal towns of the Adriatic Sea in the Mediterranean.¹³ However, the question that imposes itself is whether constant linear development would lead to centralization and overpopulation of previously mentioned centres.¹⁴ This will further be explained on Budva's example, as a coastal Mediterranean town.

⁷ Memišević, Tijana Tufek. "A Linear City Development Under Contemporary Determinants." *Środowisko Mieszkaniowe/Housing Environment*, vol. 14, 2015, pp. 190–195.

⁸ A V Antyufeev and O A Antyufeeva 2019 IOP Conf. Ser.: Mater. Sci. Eng. 687 055025 DOI 10.1088/1757-899X/687/5/055025

⁹ Ar. Ayaz Ahmad Khan Ass. Professor Inveris University "Pioneers of town planning" Accessed March 26., 2025. <https://www.slideshare.net/slideshow/soria-y-mata/93363532>.

¹⁰ A V Antyufeev and O A Antyufeeva 2019 IOP Conf. Ser.: Mater. Sci. Eng. 687 055025 DOI 10.1088/1757-899X/687/5/055025

¹¹ A V Antyufeev and O A Antyufeeva 2019 IOP Conf. Ser.: Mater. Sci. Eng. 687 055025 DOI 10.1088/1757-899X/687/5/055025

¹² Harris, C. D., & Ullman, E. L. (1945). The Nature of Cities. The ANNALS of the American Academy of Political and Social Science, 242(1), 7-17. <https://doi.org/10.1177/000271624524200103> (Original work published 1945)

¹³ Robert, S., Fox, D., Boulay, G. et al. A framework to analyse urban sprawl in the French Mediterranean coastal zone. *Reg Environ Change* 19, 559–572 (2019). <https://doi.org/10.1007/s10113-018-1425-4>

¹⁴ Lagarias, A., Stratigea, A. Coastalization patterns in the Mediterranean: a spatiotemporal analysis of coastal urban sprawl in tourism destination areas. *Geojournal* 88, 2529–2552 (2023). <https://doi.org/10.1007/s10708-022-10756-8>

METHODOLOGY

The methodology used in research for this paper consists of two phases. The first phase presents empirical research, which consists of several steps. The first step was a graphical analysis of the territories of Budva, which were included in the current planning documentation of the lower order, after which the planning documentation for the higher order was added. Graphical analysis included a historical overview of planning documentation from 1961 to 2017.

With graphical analysis finished, next came chronological representation of planning documentation of the town of Budva with a classification of said documents into groups of higher and lower order. After finishing the two steps, linear development was recognized. Having recognized this type of development, geographical analysis was done in order to understand what territory of this coastal town was considered to be most appropriate for development throughout the course of the history of its urban planning. This analysis showed that the coastal belt was preferred to the mountainous hinterland. This imposed the question: How did different state agendas influence the urban development of Budva?

The phase of theoretical research included a review of primary and secondary sources with the goal of finding information about the linear city concept and multi-core development, as well as the origin of and implementation of this concept in the urban planning of coastal towns. Revision of primary sources was carried out in two phases. The first phase was finding the theoretical stronghold of the linear city concept and multi-core development. The second phase was the analysis of key planning documents which were responsible for the current state of the town of Budva. A review of secondary sources was used with the goal of understanding the consequences of the implementation of said urban models in the Mediterranean coastal towns of the Adriatic Sea. In the end, all of this was implemented in the research paper in order to understand why there is no development of the mountainous hinterland of coastal towns, specifically Budva.

DISCUSSION

Use of “linear city concept” on Mediterranean coastal towns

Mediterranean coastal towns in the Adriatic Sea have specific geographical dispositions, leaving them with an indented coastline on one side and high mountain hinterland on the other. Due to this and the recognition of potential in tourist development (which focused on the sea), urban planning was mainly centralized on the coast with a linear disposition.¹⁵ In addition, urban planners used a developing methodology of several centres in order to disperse administrative content and relieve the cluttered territories.¹⁶ In summation, the urban development we see today, which is mainly concentrated along the coast, is the result of two era defining concepts: the first being the „line city” concept by Arturo Soria y Mata and second one - a multi-centre concept, first proposed in 1945. by Harris & Ullman¹⁷.

As previously mentioned, the linear concept with multiple centres took hold due to two factors: geographical predispositions and tourist development. Geographical dispositions left coastal towns in three belts: coast, swamp and mountainous hinterland. Due to experiential studies, urban planners focused on developing the coastline with the goal of creating tourist offers which focused on the sea and beaches. This led to the creation of tourist infrastructure on the coast and its connection to the

¹⁵ Apostolos Lagarias, Ioannis Zacharakis, and Anastasia Stratigea. 2022. Assessing Coastal Urban Sprawl and the “Linear City Model” in the Mediterranean – The Corinthian Bay Example. In Computational Science and Its Applications – ICCSA 2022 Workshops: Malaga, Spain, July 4–7, 2022, Proceedings, Part II. Springer-Verlag, Berlin, Heidelberg, 439–456. https://doi.org/10.1007/978-3-031-10562-3_31

¹⁶ Harris, C. D., & Ullman, E. L. (1945). The Nature of Cities. The ANNALS of the American Academy of Political and Social Science, 242(1), 7-17. <https://doi.org/10.1177/000271624524200103> (Original work published 1945)

¹⁷ Harris, C. D., & Ullman, E. L. (1945). The Nature of Cities. The ANNALS of the American Academy of Political and Social Science, 242(1), 7-17. <https://doi.org/10.1177/000271624524200103> (Original work published 1945)

marine.¹⁸ Which can be perceived in the example of The Corinthian Bay. Furthermore, this conditioned the living population to build in the near vicinity with a focus on functionality and closeness to sources of work and livelihood. As presented in the example of Robert S., Fox and Boulayey in their research of French Mediterranean coast. For this reason some towns have several administrative centres on their territory.¹⁹

However, this provoked further centralization, which led to the degradation of the coastline and the complete neglect of the mountainous hinterland. This is why many coastal towns suffer problems from pollution and the development of heat islands. But most importantly the resource of space in that narrow part of their territory is uncontrollably spent.²⁰

Use of “linear city concept” presented in graphical review of Budva’s development

To further the empirical research and its connection to the theoretical one, graphical representation of Budva’s coast plays crucial role in this research. In referenced figures (e.g. Figure 1, Figure 2) it can be seen that 85% of Budva’s territory is the previously mentioned under-researched mountainous hinterland.²¹ A lot of that territory is underdeveloped and is overlooked.²² This is partly due to some regulations that preserve it from urban devastation and preservation of cultural heritage, but mostly it is because planning documentation focuses solely on the part of the town underneath the Adriatic highway.²³ This resulted in the migration of people from the mountain to the coast, thus creating centralization and overpopulation. In addition to that, one can see the creation of multiple centres (Jaz, Budva with Becici, and Petrovac), which further proves the theory of connecting the “line city” concept by Arturo Soria y Mata and a multi-centre concept, first proposed in 1945. by Harris & Ullman as a crucial momentum in creating functional “line city”.



Figure 1: Representation of territory of coastal line and mountainous hinterland of Budva, Montenegro. Source: Milena Bismiljak

¹⁸ Apostolos Lagarias, Ioannis Zacharakis, and Anastasia Stratigea. 2022. Assessing Coastal Urban Sprawl and the “Linear City Model” in the Mediterranean – The Corinthian Bay Example. In Computational Science and Its Applications – ICCSA 2022 Workshops: Malaga, Spain, July 4–7, 2022, Proceedings, Part II. Springer-Verlag, Berlin, Heidelberg, 439–456. https://doi.org/10.1007/978-3-031-10562-3_31

¹⁹ Robert, S., Fox, D., Boulay, G. et al. A framework to analyse urban sprawl in the French Mediterranean coastal zone. *Reg Environ Change* 19, 559–572 (2019). <https://doi.org/10.1007/s10113-018-1425-4>

²⁰ Merve Yilmaz, Fatih Terzi, Measuring the patterns of urban spatial growth of coastal cities in developing countries by geospatial metrics, *Land Use Policy*, Volume 107, 2021, 105487, ISSN 0264-8377, <https://doi.org/10.1016/j.landusepol.2021.105487>

²¹ ANNEX1: https://drive.google.com/file/d/1qeSxHg8vPRpWx0cas_SEPTwwpbR9T7/view

²² Institute for architecture and urbanism of Serbia – Belgrade, Budva construction institute: “Changes and additions to the part of the General urban plan of the coastal zone of the municipality of Budva, sector: Kamenovo - Buljarice, study of the renewal and revitalization of villages in the hinterland”, September 2003

²³ Valid planning documentation of the municipality of Budva of lower order (DUP, LSL, UP, PPPNOB)

To further the research, author decided to make a comparison of GIS images of Budva's development from the year of 2007 and 2018. (e.g. Figure 3, Figure 4) This showed show no significant development of Mountainous hinterland in opposition to coastal line and its centres. It seems that planning committee is forced to plan in a line due to lack of regulations which would allow them to disperse to the hinterland. Which could be directly connected to the historical development which will be addressed in the next chapter.

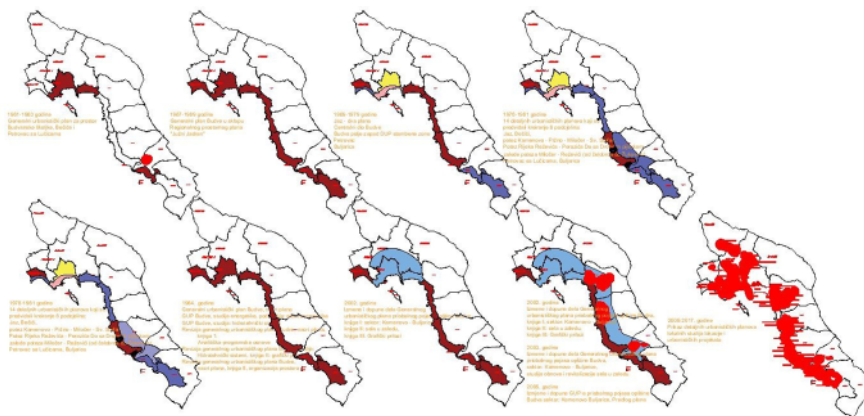


Figure 2: Representation of Budva's urban development from 1961 to 2017. Source: Milena Bismiljak



Figure 3, 4: Representation of Budva's urban development from 2007 to 2018. Source: <https://geoportal.co.me/Geoportal01/>

RESULTS

Empirical and theoretical research resulted in three key questions: Would constant linear development lead to centralization and overpopulation of multiple centres? How did different state agendas influence the urban development of coastal towns, specifically Budva? Why is there no development of mountainous hinterland of coastal towns? These questions will be answered through further analysis of Budva's urban development.

Historical review of urban planning of Budva, Montenegro

As it happened in the French Mediterranean coast and The Corinthian Bay, the touristic potential of Budva was recognised and urban planning started in 1961. Back then planners created three centres: Jaz, Budva with Becici, and Petrovac (e.g. Figure 1, 2 and Annex 1) . They focused on creating the

basis for further research and development of the entire territory of Budva by doing ground and hazard research and documenting which areas have restrictions to development and which don't. They concluded that there are many restrictions to building on the coastline due to the instability of the soil. However, their research did result show soil stability in mountainous hinterland.²⁴ In conclusion, they made a general plan for the immediate development of three centres and set the base for the future connection of said centres and the development of the hinterland. It can be concluded that the starting idea was the "line city" with further dispersion of the town to the mountainous hinterland.

Later on, in 1969, a general plan was made and it included the entire coastline of ex. Yugoslavia. This was a strategic document that planned urban development until 1990, with an analysis of migrations and predictions of centralization at the state level.²⁵ In this phase of urban planning, experts decided to keep the three centres, with the addition of Buljarice (which they reserved for future use if the need occurs). (e.g. Figure 2, Annex 1²⁶)

After careful analysis of the graphic part of both documents (from 1961 and 1969), it can be concluded that in both cases, planners of these documents worked with an empty space which had to be cultivated for modern and progressive use in accordance with the agenda of that time, which was: a social and economic growth in Ex. Yugoslavia.

After having started the building of infrastructure and architecture, this continuous development was stopped by a devastating earthquake which occurred in 1979 and left most of the coastline destroyed and Budva's infrastructure ruined, including 85% of the Old Town of Budva.²⁷ This led to a different approach to planning, which focused on regionalism and exploitation of the town's resources with the agenda of urban decentralization and expansion to the mountainous hinterland so that any future catastrophes could be avoided. It is clear from the Revision of the general urban plan of Budva from 1984 that those planners focused on the biohazard research their predecessors did.

Having been led by catastrophic consequences of the earthquake the entire concept of the town was changed, starting with the architectural competition for the hotel complex "Slovenska Plaza".²⁸ This was supposed to change the course of urban development from a universal social approach to a more local one. This concept focused on connecting the hinterland to the coast through infrastructure and activation of intangible and material cultural heritage through tourist offers.²⁹ In their opinion, this would encourage the living population to migrate to the mountainous hinterland in opposition to the very popular coastline. The method used by the government for creating a "new look" for Budva's development included public, regional architectural competition. The aim of this attempt was to include the public of Ex. Yugoslavia and create a local vision for the towns development, as opposed to international one.³⁰

Once again, that was disrupted. This time, by falling apart of Yugoslavia and the creation of a new state regulation. Montenegro transitioned from socialism to capitalism in a short time. This stopped

²⁴ Revision of the general urban plan of Budva; Draft plan; Book 1: Analytical Program Basics General Urban Plan of the Coastal Zone of the Municipality of Budva for the Sector: Budva-Bečići (1984.)

²⁵ General Plan of Budva as part of the Regional Spatial Plan "South Adriatic" (1969.)

²⁶ Author, ANNEX 1: https://drive.google.com/file/d/1qeSxHg8vRepWX0cas_SEPTwvpbR9T7/view

²⁷ Rovčanin Premović G., Karač Z. Arhitektura i kontekst u konceptu turističkog naselja „Slovenska plaža“ u Budvi, Anali Ser. Hist. Sociol. Vol. 31. 2021. iss. 4. DOI: 10.19233/ASHS.2021.41

²⁸ Rovčanin Premović G., Karač Z. Arhitektura i kontekst u konceptu turističkog naselja „Slovenska plaža“ u Budvi, Anali Ser. Hist. Sociol. Vol. 31. 2021. iss. 4. DOI: 10.19233/ASHS.2021.41

²⁹ Institute for architecture and urbanism of Serbia – Belgrade, Budva construction institute: "Changes and additions to the part of the General urban plan of the coastal zone of the municipality of Budva, sector: Kamenovo - Buljarice, study of the renewal and revitalization of villages in the hinterland", September 2003

³⁰ Rovčanin Premović G., Karač Z. Arhitektura i kontekst u konceptu turističkog naselja „Slovenska plaža“ u Budvi, Anali Ser. Hist. Sociol. Vol. 31. 2021. iss. 4. DOI: 10.19233/ASHS.2021.41

the infrastructural development and decentralization planned in the '80s, and a new agenda was created due to the lack of financial resources in a time of fast-growing popularity of this touristic destination.³¹ This agenda inclined the need for rapid urban growth through private investment. Valid urban planning documentation of Budva, specifically the Special Purpose Spatial Plan for the Coastal Area of Montenegro, evidently states that maximum space capacity should be reached on the coastline, which was mostly reserved for touristic development. This has led to the planning of the maximum capacities for residential infrastructure. The main factor in this part of Budva's urban evolution played private investment. Therefore, planning focused on financial gain of individuals, which as a result gave maximum capacities of use on private plots. This is visible in DUP "Budva centre" – amendments from 2012. In the end, it all resulted in the need to upgrade roads and transportation means. Once again, this brought planning back to the "line city" concept with multiple centres.

Further research

This research paper will allow further research on the practical implementation of the concept of linear cities in the urban planning of coastal towns. In addition, this paper will allow further insight in alteration of urban planning in transition of socio-political circumstances and natural disasters.

CONCLUSIONS

The research of the "line city" concept by Arturo Soria y Mata and the multiple centre concept, first proposed by Harris & Ullman in the context of a Mediterranean coastal town in the Adriatic Sea, brings one to the conclusion that these two concepts can be starting points of urban development, but should not be a constant guiding idea.³² After careful analysis of Budva's planning documentation it is evident that due to lack of interest in developing the mountainous hinterland, people were forced to turn to the coast and use as much space as possible in order to maximize the capacity, which was required by change of times and growing popularity of the touristic destination. If one connects this to the constant change of state agendas which were forced by ad hoc events of human and natural influences, it leaves us with the conclusion that the development of Budva never reached the point which allowed spreading to the hinterland. For the past 56 years, Budva has been built from scratch. There was always a need to set a foundation by building in order to develop. For this reason one can conclude that the mountainous hinterland has yet to take its turn in terms of urban development.

REFERENCES

- Milena Bismiljak, ANNEX 1: https://drive.google.com/file/d/1qeSxHg8vPRepWX0cas_SEPTwwpbR9T7-/view
- Ar. Ayaz Ahmad Khan Ass. Professor Invertis University "Pioneers of town planning" Accessed March 26., 2025. <https://www.slideshare.net/slideshow/soria-y-mata/93363532>.
- A V Antyufeev and O A Antyufeeva 2019 IOP Conf. Ser.: Mater. Sci. Eng. 687 055025 DOI 10.1088/1757-899X/687/5/055025
- Institute for architecture and urbanism of Serbia – Belgrade, Budva construction institute: "Amendments to the GUP of the coastal zone of the municipality of Budva sector: Kamenovo Buljarice, Plan proposal", October 2005.
- Apostolos Lagarias, Ioannis Zacharakis, and Anastasia Stratigea. 2022. Assessing Coastal Urban Sprawl and the "Linear City Model" in the Mediterranean – The Corinthian Bay Example. In Computational Science and Its Applications – ICCSA 2022 Workshops: Malaga, Spain, July 4–7, 2022, Proceedings, Part II. Springer-Verlag, Berlin, Heidelberg, 439–456. https://doi.org/10.1007/978-3-031-10562-3_31

³¹ Duletić Đ. V. Budva od mita do stvarnosti – Studija o razvoju budvanskog turizma, Vlado Đ Duletić, Budva 2010.

³² Robert, S., Fox, D., Boulay, G. et al. A framework to analyse urban sprawl in the French Mediterranean coastal zone. *Reg Environ Change* 19, 559–572 (2019). <https://doi.org/10.1007/s10113-018-1425-4>

- Duletić Đ. V. Budva od mita do stvarnosti – Studija o razvoju budvanskog turzima, Vlado Đ Duletić, Budva 2010.
- Harris, C. D., & Ullman, E. L. (1945). The Nature of Cities. The ANNALS of the American Academy of Political and Social Science, 242(1), 7-17. <https://doi.org/10.1177/000271624524200103> (Original work published 1945)
- Institute for architecture and urbanism of Serbia – Belgrade, Budva construction institute: "Changes and additions to the part of the General urban plan of the coastal zone of the municipality of Budva, sector: Kamenovo - Buljarice, study of the renewal and revitalization of villages in the hinterland", September 2003
- United nations (program for development), Federal Executive Council of Yugoslavia, intermunicipal centre for revision of GUPs Budva and Cetinje: "Revision of the general urban plan of Budva; Draft plan; Book 1: Analytical Program Basics General Urban Plan of the Coastal Zone of the Municipality of Budva for the Sector: Budva-Bečići", October 1984.
- Government of S.R. Yugoslavia, Regional construction institute of S.R. Montenegro: General Plan of Budva as part of the Regional Spatial Plan "South Adriatic", December 1968.
- Lagarias, A., Stratigea, A. Coastalization patterns in the Mediterranean: a spatiotemporal analysis of coastal urban sprawl in tourism destination areas. GeoJournal 88, 2529–2552 (2023). <https://doi.org/10.1007/s10708-022-10756-8>
- Merve Yilmaz, Fatih Terzi, Measuring the patterns of urban spatial growth of coastal cities in developing countries by geospatial metrics, Land Use Policy, Volume 107, 2021, 105487, ISSN 0264-8377, <https://doi.org/10.1016/j.landusepol.2021.105487>
- Memišević, Tijana Tufek. "A Linear City Development Under Contemporary Determinants." Środowisko Mieszkaniowe/Housing Environment, vol. 14, 2015, pp. 190–195.
- Robert, S., Fox, D., Boulay, G. et al. A framework to analyse urban sprawl in the French Mediterranean coastal zone. Reg Environ Change 19, 559–572 (2019). <https://doi.org/10.1007/s10113-018-1425-4>
- Rovčanin Premović G., Karač Z. Arhitektura i kontekst u konceptu turističkog naselja „Slovenska plaža“ u Budvi, Anali Ser. Hist. Sociol. Vol. 31. 2021. iss. 4. DOI: 10.19233/ASHS.2021.41
- Sala, M., Trombadore, A., Fantacci, L. (2019). The Intangible Resources of Vernacular Architecture for the Development of a Green and Circular Economy. In: Sayigh, A. (eds) Sustainable Vernacular Architecture. Innovative Renewable Energy. Springer, Cham. https://doi.org/10.1007/978-3-030-06185-2_12