

# REVIEWS

---

REVIEWS

STRATIGAKOS, DESPINA. *HITLER'S NORTHERN UTOPIA. BUILDING THE NEW ORDER IN OCCUPIED NORWAY*. PRINCETON; OXFORD: PRINCETON UNIVERSITY PRESS, 2020, 351 PP.  
ISBN 978-0-691-21090-2

In the Canadian-born American historian Despina Stratigakos's new book, the publisher claims that it is about an "untold story". It is mainly about Hitler's envisioned northern utopia for the occupied territory of Norway between 1940 and 1945. For international readers it is refreshingly new. Norwegian historians have not often published in foreign languages, so foreign readers and scholars do not have the same insight as Norwegians into Norwegian relations during World War II. Consequently, the Norwegian perspective pays more attention to specific national discourses, marked by more internal questions of national significance, than Stratigakos does.

So, her angle is different. Her starting point is the Nazi German regime and its visions for Norway. She presents an interesting view of the architects and engineers of Organisation Todt (OT). OT's importance was so great that the institution was named "the second army" by the Allies. OT was first led by the wilful construction engineer Fritz Todt (1891–1942). After his death in 1942, the legendary right hand of Adolf Hitler, Albert Speer (1905–1981), took over the powerful paramilitary organization, responsible for the building and construction of the Nazi German-controlled areas during the war (1939–1945).

Stratigakos gives us a detailed insight into OT and its strategists. As one can imagine, it is not a book dealing with the Norwegian reactions to the strategies. Rather, she makes the reader aware of Norway's rather different role compared to those of other occupied territories through the occupation. Because Norwegians were considered as racial and cultural opposites to the subhuman – or in German "Untermensch" – Norway rises as a contrast to areas of Eastern Europe. The ideas about the Nordic race and the brotherhood of Teutonic, Aryan people started to develop during the interwar period during an international conference on art. Then and there, the visions of some architects within the Nazi establishment became the basis for further and broader

perspectives, put into action during the Nazi German occupation. Hitler did not visit Norway during the occupation – only in 1934. However, one can feel his considerations, visions and presence when it comes to the concerns and plans for Norway during World War II. He considered Norway as a "Zone of Destiny" – a "Schicksalsbereich" – binding up huge military resources in Norway during the occupation.

The first chapter addresses the main topic with a focus on how the German press was "Romanticizing the North". The connection with an imminent need for information back home is clear. The attack on Norway probably came as a surprise in Germany as well. Why did Nazi Germany invade Norway? What was the reason for sending as many as 400,000 soldiers to the region, when the initial plan was to create a "lebensraum" for the German people in Eastern Europe? We know how instrumental the German propaganda was during World War II, so it comes as no surprise that the propaganda units of the Nazi regime directed their output towards target groups back home, partly based on ulterior, rather pragmatic motives. Because of the subsequent occupation, the regime had to construct a narrative fitting Norway into a concept of ideological aims. Norway was an underdeveloped void, an open space where visionary Nazis could cooperate with Nordic people in the development of a model nation.

Because the main perspective is German, there is not that much space given to the local actors – the inhabitants of Norway. They are more or less passive, observing extras. One important exception is the architect and professor in town planning, Sverre Pedersen, who was in charge of the Norwegian organization responsible for the reconstruction of the war-torn cities. His resistance to the great Nazi visions irritated the foreign architects. However, there is no proper overview on the development in relations between the occupied and the occupant regarding resistance, or reluctance to enact the plans and visions. The occupation changed from reluctant cooperation to a more articulated resistance, especially during the last three years under foreign rule. However, Stratigakos conclusively ends the chapter by focusing on the gap between visions and reality. All was not at all well between

the rulers and the ruled people. Despite being two peoples who were brothers of the same Aryan race, the occupation laid open a world of division and hierarchization. The introduction of a “New Order” in the North was far from easy to accomplish, mostly because of the lack of communication between the regime and the occupied people.

The second chapter deals with the way the Nazi German occupants tried to recreate Norwegian society in their ideological image, and how they implemented the “New Order”. This is implicitly describing how a colonial power tends to create a rule over a foreign country by the promotion of their fundamental ideologies. Stratigakos uses the term “Nazification” but does not define the concept properly, which she should have, since the book focuses so strongly on the history of ideologies. How did the regime implement the ideology? What was its essential concept? Road construction? Town planning? The development of infrastructure? For the conqueror it seems to be a rather technical issue. First and foremost, fortifications were to be built, to bolster Norway’s buffer towards the North Sea and the menacing Great Britain in the west. Norway was to be part of the Atlantic Wall, a coastal fortification line from the Barents Sea to the Bay of Biscay. Another vision concerned road construction, which was not different from the existing visions for the country before the occupation. The German occupiers wanted to link distant regions by Autobahns, especially in the parts closest to the Soviet Union. The vision was to connect distant regions, as well as connecting Norway with Germany. The roads were to build a new “Volksgemeinschaft” – a community between Norwegians and Germans. However, the Nazi regime needed the roads for military purposes as well, especially connected to “Operation Barbarossa” in June 1941, when the region of Finnmark was used as a frontline in the invasion of the Soviet Union.

Because of this obsession with defence, systems and military logistics, and the need for an extra workforce, more than 100,000 prisoners of war and foreign forced labourers were deported to work in Norway. They were tortured, plagued and tormented by the Nazi regime under the harsh climate and poor living conditions. For the Norwegian population, especially in the county of Nordland, the

Nazi German race policy was brought to light in all its horror. As many as 17,000 did not leave Norway alive, with Soviets, Yugoslavs and Poles being the peoples worst affected. Stratigakos also makes a visit to another Nazi invention affecting Norway, namely the “Lebensborn” programme. It “sought to direct the production and flow of babies born to Norwegian women and German soldiers”, she underlines, and adds that the whole concept was about securing the “Aryanness” of the German population. The programme created a lot of traumas in the post-war period, not only directly for the women involved, their children and their relatives, but also in the Norwegian handling of the case as a national trauma in the Norwegian World War II memory process. The Lebensborn children and their mothers became part of the “Nazification process”, and hence pariahs.

The third chapter deals with the colonizers’ whereabouts in the North, seen through the realization of the welfare system for soldiers – the Soldiers’ Homes. These “Isles of Germanness” were constructed to take care of the young male German population in this remote and rural foreign atmosphere. Hitler himself led by example, when he donated one million Reichsmarks to the Soldiers’ Homes in Norway. The rationale was that Norway was, as Goebbels claimed, “of vast distances and of hard winter”. Far away from family and friends, the German soldiers needed a German nest in which to cultivate their own culture, through architecture, art and music. To illustrate this, Stratigakos takes us into some of the homes and shows us the ideas behind the architecture and interiors and their connection with German history, culture and geography. The Soldiers’ Homes paradoxically became secluded areas where the Germans isolated themselves from their “Norwegian brothers”. In some of the most war-torn cities they became grim examples of the Nazi German ostentation. While the Germans cultivated culture and Germanness in newly erected stately palaces of togetherness, civilian Norwegians who had lost their homes through German air raids in 1940 had no materials for the reconstruction of their homes. The hierarchies of importance and priority and the division between the people and their rulers became even more evident, symbolized by the Nazi German utopians.

The fourth chapter deals with town planning, especially the reconstruction of the towns demolished by the Luftwaffe in the acts of war during the spring of 1940. The Nazi German attackers failed in their strategy to get the Norwegian government and Royal family to cooperate on the occupation. The Norwegian Royal family decided to organize military resistance in the northern Norwegian regions with help from French, British and Polish troops from April to June 1940. But by the time of the capitulation in June, they had fled to London and continued the resistance there, so the power vacuum led to new changes of strategy for the occupation. However, the result was a German occupation and control of the state administration, beginning when Denmark, the Netherlands, Belgium and France were under the Nazi German control. From then on, some of Hitler's most trusted men were travelling around in war-torn Norwegian towns to tell the municipal authorities about the utopian plans for a future ideal society. Stratigakos calls this project a "Nazification" process and devotes the subsequent chapter to a case study of the model city, "New Trondheim", which was to be the urban beacon of the visions for a Nazi German city in Norway. Stratigakos' perspective is not directed towards the tensions which occurred between the ruling elites and the inhabitants of the occupied land, but rather towards the mindset of the rulers.

At the end, the author concludes with a rather short chapter on all the consequences of the Nazi German ideology and visions for Norway, namely "Ghosts in the Landscape". Here one can see the presence, or rather the lack of cultural heritage, of the Nazi German strategies. Even though there were utopians envisioning a new Trondheim in the vicinity of today's Trondheim, there is hardly any trace left in the landscape reminding us about the visions of Hitler's men. Consequently, a follow-up to this book could expect to deal with the responses to these visions from the reluctant Norwegians.

So, what is gained with Stratigakos' book? First, it gives new and necessary insights into the German ambitions for Norway. Through it, one finds ways into the mindset and ideology of the Nazi regime, and it is possible to compare the role of the occupation

in the Norwegian territory with other parts of the world controlled by Nazi Germany. Then some other aspects of the Nazi regime become clear. The contributions Germany made to Norway were, for instance, higher than the exports from Norway to Germany. This aspect shows the extent to which the regime was patient with Norway, at least in the first period of the occupation. Although there were plans for autostradas in Norway, the road system was not at all modern after five years of occupation. However, the traces of an ambitious strategy for infrastructure building are still visible. The modernization of Norway started during the Nazi German regime and was to be increased further in the post-war period by other political strategists. In this aspect, Stratigakos shows us that some of the visions of the Nazi regime were indeed common goals connected with nation state-building and economic modernization. So what, then, is "Nazification", and what is "modernization"? After some years in Norway the Nazi regime realized that the war was about to be lost, and the visions for a Nazi showcase in Norway were to be forsaken. Hence Stratigakos' book is a solid reminder of what could have been but was not. The reason was that all resources were put into the project of losing "a Total War".

Prof. Steinar Aas, Dr. Artium  
Nord university, Bodø, Norway  
ORCID iD: 0000-0002-4359-9098

D'ACCI, LUCA (ED.) *THE MATHEMATICS OF URBAN MORPHOLOGY*. BASEL: BIRKHÄUSER, 2019, 577 PP. ISBN 978-3-030-12380-2

Urban morphology is a relatively new field of science. Traditionally it is traced back to the "British" school of M.R.G. Conzen and J.W.R. Whitehand; and to the "Italian" school of Gianfranco Caniggia and Gian Luigi Maffei. The former is rooted more in geography, the latter in architecture. In particular, three relatively recent (hand)books mark the emergence of urban morphology as a "self-standing" science: the book *Urban Morphology: An Introduction to the Study of the Physical Form of Cities* by Vitor Oliveira (Springer, 2016), *The Handbook of Urban Morphology* by Karl Kropf (Wiley, 2017),

and, in a special Central European context, the book *Towns in Austria-Hungary: Urban Tissue Typology and Urban Typology 1867–1918* by Eva Lovra (Terc, 2019).

As the book *The Mathematics of Urban Morphology* also testifies, urban morphology is currently a flourishing field at the cross-section of several disciplines: geography, architecture and urban planning, mathematics, engineering, statistics, and sociology. The leading idea of this book containing around 30 studies from different fields is what Michael Batty of the University College of London (the author of the foreword of the volume) refers to as “The New Science of Cities” in his 2013 book with the same title.

Although cities admittedly have physical form (the much-discussed “urban form”), it is not easy to grasp, scrutinize, and discuss it in an objective, formalized, empirically tested and comparable (reproducible) way. Another aspect is the connection between the physical form of the cities and the social aspects, including the “quality” of urban space (the “image of a city”) that is hard to either quantify or describe. Nowadays significantly more data are available than any time before in history: this is what is often referred to as Big Data, which means a big opportunity if we know how to mine it. Meanwhile, it is important to avoid an excess of formalization and at the same time to be consistent with the conceptual rigour of mathematics, to paraphrase Bellomo and Terna from the book.

The studies in the volume are grouped into six main chapters: Fractals, Cellular Automata, Spatial Networks and Space Syntax, Complexity, Other Forms of Quantification, and Humanistic and Multidisciplinary Commentaries. These main chapters describe, more or less, the different approaches to the topics discussed above. Besides the above, the studies can be grouped in another way too, like this: introductions and discussions of an already established field and method (e.g., space syntax), discussions of new methods and case studies regarding their application, self-standing case studies, essay-like theoretical remarks, and (edited) republishing of earlier important writings.

The book can be read in several ways. It can be seen as a summary of the recent results and aspirations in this interdisciplinary field. It can foster new thoughts, considerations

and research projects. And last, but not least, it can be used as a handbook. Several methods of study are rigorously described, so they can be repeated on other cities as well. Reproducibility and comparability are key factors in almost every study, as they are key concepts of the so-called hard sciences too. Several authors (alone or as members of research groups) developed custom software for their methods, and these pieces of software are freely available for the scientific community.

Although the authors refer to their studies as “chapters”, and the grouping of the studies also suggests that the book is a coherence handbook, it is in fact a collection of loosely connected studies. This is not a problem at all; actually, it underlines the fact that this field is extremely vivid and there is a place for multiple ideas and methods. Together with all this, a short editorial would have been advisable, discussing the circumstances of birth, the purpose, and the editorial principles/decisions of the volume. A short introduction describing the background of the authors would also have been advisable. The book informs the reader only about their affiliations, and nothing about their professions, expertise, ages, etc. In a new and interdisciplinary field, these data are of particular interest, and not only for the less informed readers.

The last chapter – written by Michael P. Conzen – can be seen as some kind of summary. The renowned professor of geography has a very promising proposal. He issues “a challenge for a grand test of all major conceptual and analytic approaches in urban morphology to be applied in a flexibly designed project focused on a single city”. I have no information on whether this grand test has started or not, but I am sure that my lab colleagues and I would take great pleasure in joining it.

Quoting the editor Luca D’Acci from the introductory study of the book, “*quantification and mathematical modelling are means enabling us to discover partially predictable macro paths of our behaviours otherwise unreadable. Even if not deterministic, some trajectories are more probable than others. The mathematical language helps both in seeing these trajectories and in quantifying these probabilities.*” This is a clearly formulated

and welcome goal of the new science of cities, discussed in this book too.

Dr. Zoltán Bereczki  
University of Debrecen, Hungary  
City Science Research Lab  
ORCID iD: 0000-0003-0707-1621

MORAVČÍKOVÁ, HENRIETA ET AL. *BRATISLAVA (NE)PLÁNOVANÉ MESTO [BRATISLAVA, (UN)PLANNED CITY]*. BRATISLAVA: SLOVART, 2020, 624 PP. ISBN 978-80-556-4696-1

Urban history is one of the fields of historical science that is currently developing very rapidly. Behind this development is the effort to understand the development of the city again. It is also an attempt to take urban development back into one's own hands. This must be preceded by an understanding of the current development of urban areas, because otherwise their further development would be only random and would not be based on scientific knowledge. Due to this, the interest not only of the lay community, but especially the scientific community in the historical development of cities and metropolises has recently been growing rapidly. Urban history is thus experiencing a boom, and therefore blank points in the history of our cities are gradually being filled.

Until now, Bratislava, the capital of the Slovak Republic, has been one such place with huge gaps in its known history. Although the historiography of Slovakia is recorded by a respectable number of historical works, the history of its capital has been processed little in terms of scientific approach. Research dealing with the development of the whole city and attempting to cover its entirety, considering the historical development and especially the planned regulation as a connecting element of the whole development, has been significantly missing so far.

The presented publication, *Bratislava, (Un)planned city*, tried to map the development of the city in a broader context with regard to modern development in the twentieth century. The author's team consisted of architects and historians of architecture and urbanism, and they did their job excellently. The book freshly combines a historical and an architectural approach, with the latter rather prevailing.

The authors reference the so-called hybrid research method in the introduction to the book. They tried to connect the methods of architectonic, urbanistic and historical qualitative research and confront them with the visualization of individual planned interventions, based on previous investigation.

The mentioned methodological approach to the research could be compared mainly with the general attitude to urban history. It is often either purely chronological or local research, either in a topographical or temporal sense. The link between historical development with architectural and administrative development in the sense of their mutual connection is often not to be found.

Based on an extensively described historical development, a large number of case studies are prepared. They describe the development of either local parts of the city or urban ideas about modernization. The book is similarly structured according to this scheme. Leaving aside the obligatory introduction and the final technical part with appendices, the book is divided into three primary parts – the timeline, the historical development of the city and the typology of urban situations.

The first, shortest, part is a keyword-based list of historical developments to help the reader to orientate themselves on the topic. The timeline is multidimensional; in addition to "classic" historical events, there are also "specific" data that can be easily compared with other aspects – in this case, urban planning, the city and society, and industrial development.

The second part is a historiographical description of the chronological development of the city. It consists of a brief presentation of a large number of unrealized plans for modernization and reconstruction of the city. After an introductory summary of the development of the city in pre-modern times, the chapter focuses mainly on the modern period and the analysis of the plans that were created for Bratislava. In addition to the chronological categorization of the plans, proposals are also categorized locally and thematically, i.e., according to areas, or whether they were created for a specifically focused area or period. According to the conclusions of this research, Bratislava

developed organically, without much use of urban planning.

The third part is the most comprehensive one. It is basically a series of thematic probes that discuss the individual examples in depth. The probed examples are chosen to cover the development of the city either in specific cases or from a general point of view. In addition to the specific area of the Castle, main street or City Centre, it is the idea of an inner ring road, or an effort to develop affordable housing. In the previous chapter, the development of the city was outlined rather in general and without a more detailed insight. Here, a closer debate between the city and the actors influencing the development planning is compared. At the same time, current urban theses are applied. It is interesting to compare the past to the present state, as it is presented here. It is thus possible to parallel the continuous development of the place with regard to the current situation.

The authors used a wide source base for their publication. When describing the methodology, the authors mentioned one main obstacle. It is the impossibility of using the entire preserved archival material as it is in an uncatalogued state and thus inaccessible. Unfortunately, this kind of obstruction generally hampers any historical research. Nevertheless, this shortcoming is not to be remarked upon in the presented work. It was possible due to the broad usage of the contemporary professional discussion, published in the original architectural periodicals. It is important to mention this, because this kind of resource allows us to fill the gaps created by the impossibility of using the entire source base. Contemporary methodology, whether historiographical or urban, often omits this source. Indeed, it is an invaluable source of information for the analysis of modern urban development, sadly not used enough.

However, it is possible to make several criticisms of the publication. The first is its strong grounding in paradigms expressed by the architect and urban planner Ignasi de Solá-Morales. The team of authors admits their approaches for those paradigms in the introduction to the work. Nevertheless, it is unclear whether the authors wanted a wider comparative approach to the topic or to base

the whole research on the paradigms that de Solá-Morales had formulated.

The second is that there is no wider comparison with cities that are close to Bratislava in terms of development and geography. For example, research by Klára Brůhová focused on the same topic in the case of the city of Prague, published as *Praha nepostavená. Vltavské břehy jako urbanistické téma moderní metropole* (Prague, 2017) or *Pražské vize. Fantastické stavby, které nikdy nevznikly* (Prague, 2018). Other research focusing on the city of Vienna, conducted by a team of authors, was published as *Wasser Stadt Wien-Eine Umweltgeschichte* (Vienna, 2019). The topic is distinctive in this case, but the methodology is remarkably similar. The history of the progression of the city was described according to the evolution of its specific parts and a conclusion was projected as to why the metropolis developed into its current shape.

The third complaint points more to the technical processing of the whole book. Although the visual form of the work is interesting and unique in the production of historical literature, it is not completely ideal for work with the text and illustrations especially. Some visualizations are hard to put into context and their descriptions are confusing. Some topographical plans were published in a much smaller view than would be needed for good clarity. This could be understood if the plans were taken from newspapers, where the quality of the illustrations is not high, but not in the case of newly scanned archival plans or in the newly created visualizations of modern regulations.

Despite these remarks, it is appropriate to highlight the presented publication for its innovative approach to a multidisciplinary research approach, the width of archival research and the effort to present the development of the city in its entirety. The published book must be marked as excellent research and an essential historical work. Bratislava has finally become one of the metropolises whose modern urban development has been successfully processed.

PhDr. Kryštof Drnek, PhD.  
Archiv pražských vodovodů a kanalizací,  
Praha, Czech Republic  
ORCID iD: 0000-0003-2691-5180

NIŽŇANSKÝ, EDUARD. *DEJINY ŽIDOVSKÉJ KOMUNITY VO ZVOLENE* [A HISTORY OF THE JEWISH COMMUNITY IN ZVOLEN]. BANSKÁ BYSTRICA: ŽIDOVSKÁ NÁBOŽENSKÁ OBEC SO SÍDLOM V BANSKEJ BYSTRICI, 2016, 176 PP.  
ISBN 978-80-89127-24-5

NIŽŇANSKÝ, EDUARD – LÔNČÍKOVÁ, MICHALA. *DEJINY ŽIDOVSKÉJ KOMUNITY V BANSKEJ BYSTRICI* [A HISTORY OF THE JEWISH COMMUNITY IN BANSKÁ BYSTRICA]. BANSKÁ BYSTRICA: ŽIDOVSKÁ NÁBOŽENSKÁ OBEC SO SÍDLOM V BANSKEJ BYSTRICI, 2016, 262 PP.  
ISBN 978-80-89127-23-8

In the last few years, several works related to the history of the Jewish community in a local perspective have been published. These publications aim to provide the professional and lay public with information explaining the importance and influence of the Jewish communities in Slovak towns. In addition, they do not bypass the fates of particular people. The monographs that map the history of the Jewish community in the local context include Eduard Nižňanský's books *The History of the Jewish Community in Zvolen* and *The History of the Jewish Community in Banská Bystrica*. The co-author of the latter is Michala Lônciková. The author's long-term research interest is the Jewish communities in Slovakia.

The book *A History of The Jewish Community in Zvolen* is richly structured. In nine chapters, Eduard Nižňanský maps the fate of Jews in the town from the Middle Ages until the present. The core of the work covers the events related to the policy of the authoritative regime of the Slovak Republic in 1939–1945. The author's attention is focused on the antisemitism and the state anti-Jewish policy. The fate of Jews is described chronologically. First, the author recounts persecutions, victimization and Aryanization. He also maps the revocation of Jewish business licences and last but not least, the deportation of Jews to the concentration camps. He monitors the given phenomena against the background of the adoption of anti-Jewish legislation, which limited the living conditions of Jews throughout Slovakia in the period 1939–1945. At the same time, the author doesn't forget to demonstrate the local specifics, the initiative "from below" and

the servility of local officers. He also points out the specific destinies of Jewish citizens, gives specific names and thus helps the readers to break away from the vague destinies and numbers, and abstract figures. But several topics remain open. For example, in the case of the parts concerning the administration of Jewish house property or interventions in land ownership, a more detailed analysis at the city level is lacking. On the other hand, since the work has a synthetic rather than an analytical character, this is acceptable. It is a pity that the work does not contain a conclusion with the author's summarization of the findings. However, in the last chapter (which can be considered a kind of epilogue), the author sympathetically deals with the current Jewish community in the city, which was not fully restored until after 1989. There is no doubt about the author's erudition; the work uses a rich collection of archival material, including newspapers, as well as extensive secondary literature. The contribution of the publication lies mainly in a summary of the most important facts and events in the life of the community, which was an integral part of the city's colour before World War II.

The Monograph *A History of The Jewish Community in Banská Bystrica* by Eduard Nižňanský and Michala Lônciková has a very similar structure to the previous publication devoted to Zvolen. In twelve chapters, the authors follow the life of the Jewish community in the town, also starting from the Middle Ages. The core of the work is dedicated to the period of the war years: 1939–1945. In chronological order, they describe the first anti-Jewish measures, the exclusion of Jews from public life, persecution, Aryanization and finally the deportations themselves in the town. In comparison with the book dedicated to Zvolen, this work is more extensive and deals with several phenomena in more detail. This is probably due to the richer archival material that has been preserved in the case of Banská Bystrica. The part on Aryanization can be highlighted in particular. For example, the authors pay attention to the aspect of the insufficient expertise of the arizators, and they also mention Aryanization by prominent residents of the city. Several topics, such as the administration of Jewish movable

and immovable property, are elaborated more rigorously than in the case of the city of Zvolen. The preparation of transports to concentration camps and their course is also described in detail. I also appreciate the fact that the fates of individual people are presented, as this helps to better understand the horrors of anti-Jewish policy. In the last chapter, one can find a summary of the life of the Jews in the city after World War II, especially after 1989. Also in this case, it acts as an epilogue. The work is followed by rich pictorial material, and there are also appendices devoted to the list of Aryanized

businesses and list of Jewish household property. Unfortunately, the authors omitted a conclusion summarizing their findings based on the rich archival research. The list of sources used is documented at the end of the publication. Like the previous book, one can speak of a compact whole – a text that is mainly synthesizing.

Mgr. Patrícia Fogelová, PhD.  
Slovak Academy of Sciences, Košice,  
Slovak Republic  
ORCID iD: 0000-0001-8348-3105