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“Recent Studies and Research”

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Towards a More Comprehensive Tuning Model in Project Management

Remco Maurits Emile van der Schoot

Department of Project Management, The University of Applied Sciences
Utrecht, Padualaan Netherlands

Abstract

The increasing prominence of modern ‘wicked’ problems has highlighted the importance of effective tuning and coordination (Kettl, 2003; Pietrewicz, 2019; Hjelum & Læg Reid, 2019; Peter, 2015). However, the unresolved managerial challenges associated with achieving effective tuning pose a significant obstacle (Christensen, Læg Reid, & Rykkja, 2013; 2016). Thus, this study aims to develop a comprehensive tuning model for project management by creating and testing a novel tuning model. Drawing upon Mintzberg's (1991; 1992) theories and Espinosa, Lerch, and Kraut's (2004) ‘integrated Framework of team coordination and performance’ a novel tuning model is proposed. To evaluate the tuning model, a test case was used, employing design research within the framework of critical realism. The test case analysis revealed three key design criteria for an effective tuning solution: interdependence, hours intensity, and user-friendliness. Additionally, the test case produced an effectivity-matrix and selection-matrix for selecting the optimal tuning solution and finally a method to standardize within a dynamic context. In conclusion, the newly developed tuning model along with the effectivity-matrix, design criteria, and selection-matrix, offer practical assistance and insight for project managers seeking to understand, enhance, and evaluate tuning and coordination within their organization and projects. However, further testing and cross-validation of the tuning model is necessary.

Keywords: Tuning, Coordination, Project management, coordination mechanisms, coordination strategy, interdependence, Explicit coordination mechanisms, agile, tuning model, coordination model

Introduction

The surge in coordination and tuning issues can be traced back to the advent of the new public management paradigm, characterized by a decentralized, single-purpose,

and fragmented government. This approach aimed to establish a more efficient, responsive, and accountable system. However, as public issues grow increasingly complex and multidisciplinary, challenges in coordination and tuning arise (Cejudo & Michel, 2017; Musdah, Fattah, & Narwis, 2022). This can be accounted to the rise in what are commonly referred to as "modern wicked" problems (Head, 2022).

"Wicked problems often span a long time period, operate at multiple levels, have multiple conflicting solution directions, and involve multiple actors and stakeholders with conflicting positions."

(Universiteit van Amsterdam, z.d.).

The growing complexity and need for multidisciplinary action stemming from these so-called "wicked" problems, necessitates enhanced tuning and coordination within and across projects and organizations (Kettl, 2003; Pietrewicz, 2019; Hjelum & Lægreid, 2019; Peter, 2015). Meanwhile tuning and coordination have been understudied within the scientific community, with the bulk of the research focusing on competition and cooperation, and, more recently, on coopetition (Pietrewicz, 2019). This is evident, since the managerial challenges of effective tuning continue to be unresolved (Christensen, Lægreid, & Rykkja, 2013; 2016).

Therefore, this study aims to develop a more comprehensive tuning model for project management by creating and testing a novel tuning model. The research objective of this study is to develop a tool that enables project managers and organizations to effectively enhance tuning within their projects or organizations. For the study, a conceptual model has been created (see Figure 1: Conceptual model; collaboration, tuning and performance).

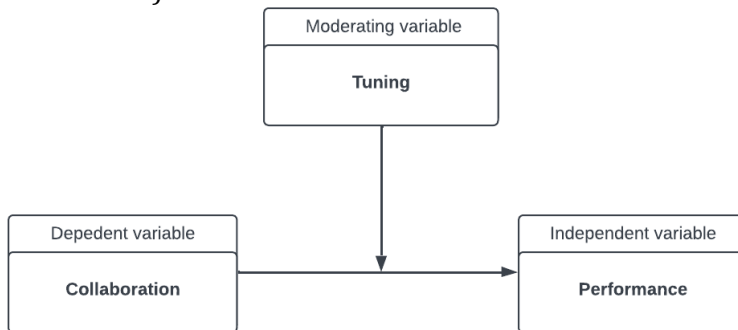


Figure 1: Conceptual model; collaboration, tuning and performance

This conceptual model is based on the 'integrated framework of team coordination and performance introduced by Espinosa, Lerch, and Kraut (2004). They state that tuning has a direct relation with performance. However, in this study tuning is seen as a moderating variable between collaboration and performance.

Theoretical framework

Definition of tuning

Tuning finds its origin in the music world. Instruments had to be tuned to each other, that way the same note would have the same pitch. The goal of tuning is not to do the same thing, but rather to create a unified whole (Van Beuzekom & Van Berkel, 2020). Since then, the concept of tuning and subsequent coordination has found its place in a wide array of disciplines (Shamim, 2022). Pietrewicz's (2019) research provides one of the most recent overviews of the concept of tuning within literature (see Table 1: 'Definitions of tuning').

Author	Definition
Blau and Scott (1962)	Organization of individuals' efforts toward achieving common and explicitly recognized goals.
Thompson (1967)	The combination of parts to achieve the most effective or harmonious results.
Van de Ven, Delbecq, and Koenig (1976)	The integration or linking together of different parts of an organization to accomplish a collective set of tasks.
Malone and Crowston (1990)	The act of working together harmoniously.
Curtis (1989)	Activities required to maintain consistency within a work product or to manage dependencies within the workflow.
Frances, Levacié, Mitchell, and Thompson (1991)	Bring into a relationship otherwise separate activities or events, typically with the goal of increasing efficiency.
Malone and Crowston (1994)	Managing dependencies among independent activities.

Table 1: 'Definitions of tuning'

The definitions from Table 1: 'Definitions of tuning' can all be traced back to their origin from the music world. The best example of this is the definition by Malone and Crowston from 1990. According to Pietrewicz (2019), the successive definition by Malone and Crowston from 1994 is also the most used, but generally in an economic context (Boella & Van der Torre, 2006). However, the study is conducted within an organizational context. Within the field of management and organizational sciences, tuning is divided into two components (Van de Ven, Delbecq, & Koenig, 1976):

- A. Organizing individual activities, and.
- B. Achieving a general, collective, or mutually beneficial goal or interest.

In other words, it involves integrating and connecting dependencies within an organization to accomplish a collective set of tasks (Van de Ven, Delbecq, & Koenig, 1976). Bakker and Hardjono (2014, p. 157) provide a more comprehensive definition of tuning in their book "Horizontaal organiseren" (Horizontal organizing), which is used during the study and test case:

*"The ability to align the different business units, processes, and employees that are interdependent and jointly responsible for value creation, without unnecessarily compromising flexibility and autonomy."**

*Translated from Dutch.

The above definition will be used during the research and test case because it is more encompassing than the definition by Van de Ven, Delbecq, and Koenig (1976).

Management of interdependence

The management of dependency, or interdependence, is done through coordination strategies based on coordination mechanisms (Pietrewicz, 2019). Interdependence can be defined as the extent to which the outcomes of one team are directly influenced by or dependent on the actions of another team (Victor & Blackburn, 1987).

Patterns of interdependence and coordination mechanisms can be interpreted differently. Classical organization theory focuses on managing task dependencies. This is the basis for the work of Thompson (1967), Van de Ven, Delbecq, and Koenig (1976), and Malone and Crowston (1990; 1994). This literature suggests that task dependencies can be managed through two coordination mechanisms: (task) programming or feedback. These are referred to as explicit coordination mechanisms (Espinosa, Lerch, & Kraut, 2004).

In contrast to classical organization theory, Espinosa, Lerch, and Kraut (2004) also focus on the context in which the task is performed when it comes to interdependence. They weigh task, team, and contextual variables, stating that "One size does not fit all" (Espinosa, Lerch, & Kraut, 2004, p. 17). They examine both explicit and implicit coordination mechanisms. Implicit coordination mechanisms are described by Wittenbaum and Stasser (1996) as the synchronization of team members' actions based on unspoken assumptions about what others in the team are likely to do. Espinosa, Lerch, and Kraut (2004, p. 10) add to the definition from Wittenbaum and Stasser (1996):

"Those mechanisms that are available to team members from shared cognition, which enable them to explain and anticipate task states and member actions, thus helping them manage task dependencies."

Implicit coordination mechanisms develop based on team cognition. Team cognition evolves through the way the organization utilizes explicit coordination mechanisms (Espinosa, Lerch, & Kraut, 2004).

Therefore, the focus was put on visualizing explicit coordination mechanisms. Espinosa, Lerch, and Kraut (2004) have visualized these two approaches in a framework (see Figure 2: Integrated Framework of Team Coordination and Performance from Espinosa, Lerch, and Kraut, 2004).

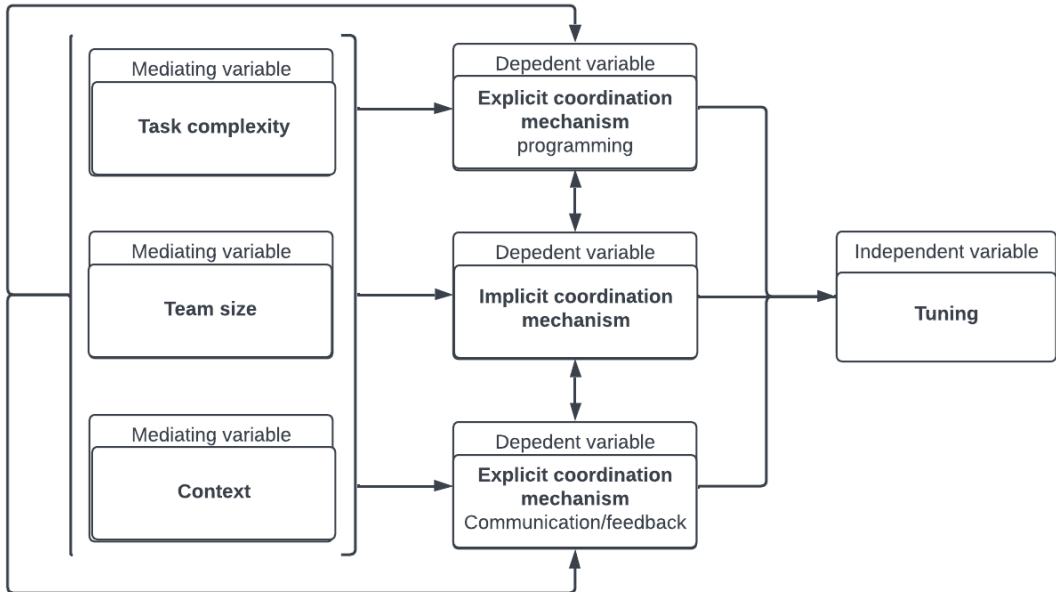


Figure 2: Integrated Framework of Team Coordination and Performance from Espinosa, Lerch, and Kraut, 2004

Mintzberg's (1991; 1992) 'typologies of organizations' align with the 'integrated Framework of team coordination and performance'. First off, Mintzberg adopts the same division for his explicit coordination mechanisms: feedback and programming. Coordination through feedback is based on the exchange of information to make necessary adjustments. Programming refers to coordination through formalization, where tasks and procedures are defined and planned. Mintzberg has added six coordination strategies to these two coordination mechanisms (see Table 2: 'Coordination mechanisms and the six coordination strategies (Kapteyn, 2001)').

Coordination mechanism based on feedback	Coordination mechanism based on programming
Mutual adjustment	Standardization of the work processes
Direct supervision	Standardization of results
	Standardization of knowledge and skills
	Standardization of norms

Table 2: ‘Coordination mechanisms and the six coordination strategies (Kapteyn, 2001)’

Secondly, Mintzberg considers the same input variables as Espinosa, Lerch, and Kraut (2004). Based on task complexity, team size, and context of the project, the project can best use certain coordination strategies (see Figure 3: ‘Effectivity-matrix; Coordination strategies and when they're effective’).

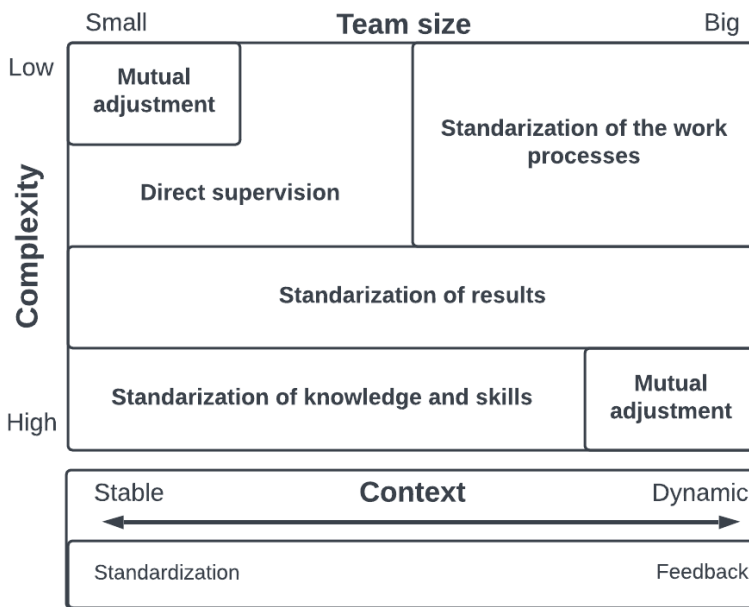


Figure 3: ‘Effectivity-matrix; Coordination strategies and when they're effective’

The effectivity-matrix helps with deciding which coordination mechanisms and strategies are most useful within the context of an organization or project. The factors ‘complexity’ and ‘team size’ are visualized in the top matrix and the factor ‘context’ is visualized in the bottom matrix (see Figure 3: ‘Effectivity-matrix; Coordination strategies and when they're effective’).

When the theories of Mintzberg (1991; 1992) and the ‘integrated Framework of team coordination and performance’ by Espinosa, Lerch, and Kraut (2004) are combined, the following tuning model can be created (see Figure 4: Tuning model).

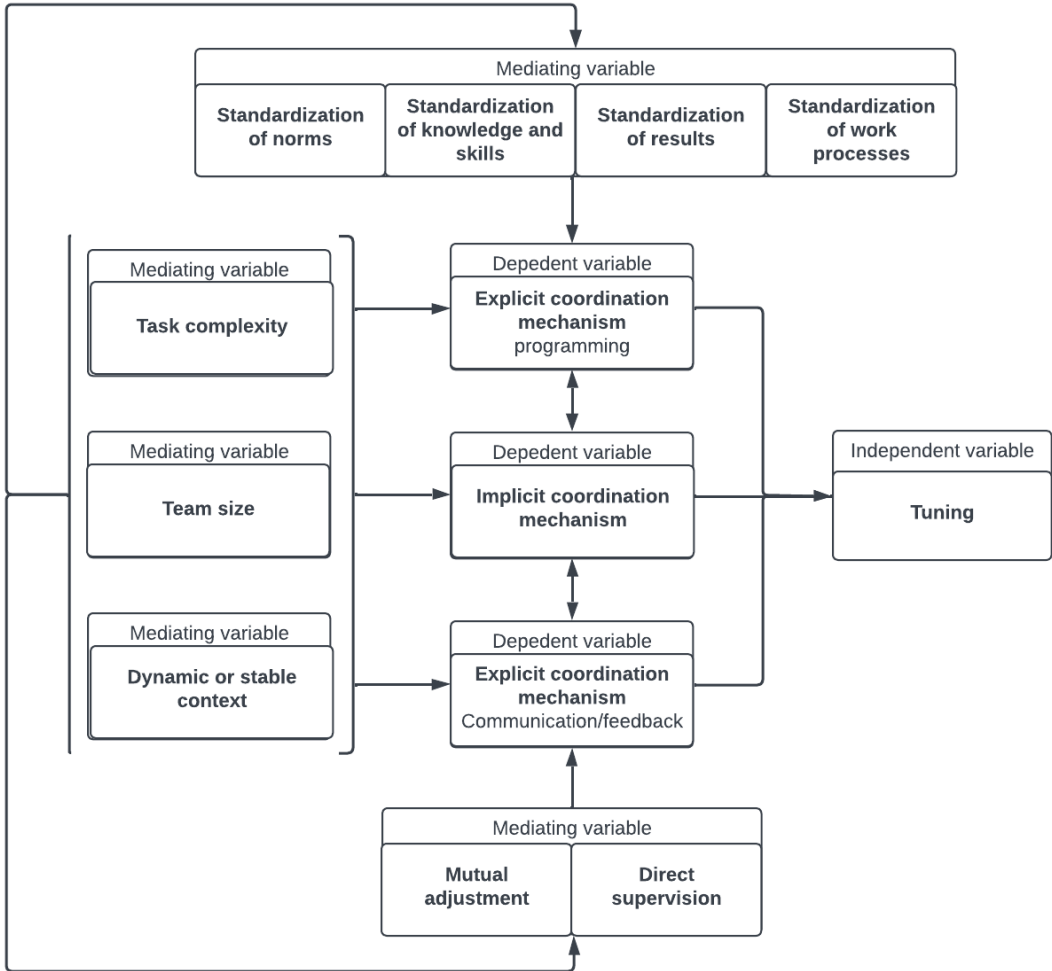


Figure 4: Tuning model

In contrast to the original model by Espinosa, Lerch, and Kraut (2004), the tuning model provides more practical guidance for project managers and the design research.

Research Design

To evaluate the effectiveness of the tuning model, a test case was conducted within the framework of critical realism, using design research (see Appendix A: ‘Test case

explained'). This approach allowed for the evaluation and improvement of the tuning model. The choice for design research was made because it is well-suited for solving wicked problems (Buchanan, 1992; Lub, 2022; Plomp & Nieveen, 2009). Secondly, design research is explicitly useful for understanding the deeper needs and ambitions of the end user (Lub, 2022). Finally, the formulation of the research question within the test case suggested a design research approach (Andriessen & van Turnhout, 2023).

Test case

To give substance to the design research, Heijnen's (2018) 'cycles of design research' were utilized, as it offers the flexibility to independently shape the design process (Figure 5: 'Cycles of design research visualized during the test case').

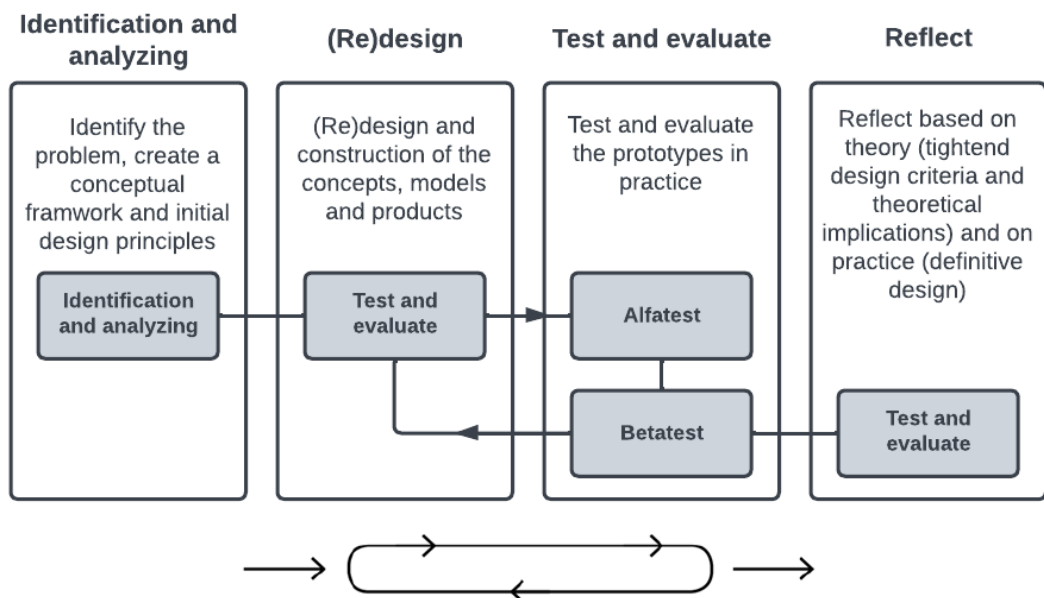


Figure 5: 'Cycles of design research visualized during the test case'

Phase one is the identification and analysis phase, where the practical problem is determined within the theoretical context, and the needs of stakeholders are identified (Dam & Siang, 2019; Heijnen, 2018; Smit, 2018). Phase two is the (re)design phase, where different solutions are developed in the form of artifacts. The design process is guided by design principles identified in phase one (Heijnen, 2018). The 1-10-100 approach is used. The 1-10-100 approach works through a funnel principle, progressing from as many ideas as possible to a final artifact in three steps (Stompff, 2018). Phase three is the testing and evaluation phase, where the chosen artifact is tested and evaluated (see Figure 6: Alfa and beta tests).

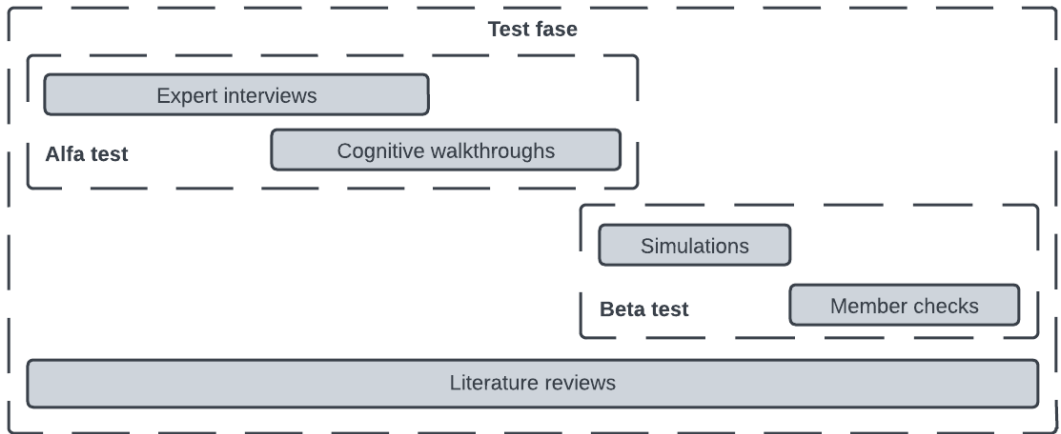


Figure 6: Alfa and beta tests

Phase four is the reflective phase, where the design research is concluded, and both practical and theoretical reflections take place (Heijnen, 2018).

Research methods

Within the design research, various research methods were employed to collect data (see Table 3: 'Overview of research methods used in the four different phases'). More than two independent data collection methods were applied, which contributes to triangulation (Saunders, Lewis, & Thornhill, 2019). This enhances the internal validity and reliability of the research (Heijnen, 2018).

<i>Research methods</i>	Identification and analyzing	(Re)design	Test and evaluation	Reflection
<i>Literature</i>	X	X	X	
<i>Individual interviews</i>	X	X	X	
<i>Group Interviews</i>	X	X		
<i>Member checks</i>	X	X	X	X
<i>Observations</i>	X	X		
<i>Cognitive walkthroughs</i>			X	
<i>Simulations</i>			X	

Table 3: 'Overview of research methods used in the four different phases'

Literature Review

A literature review was conducted using primary, secondary, tertiary, and gray literature from the test case and scientific community. By establishing an explicit theoretical framework, an attempt was made to enhance external validity within the test case(Heijnen, 2018).

Individual And Group Interviews

Ten individual semi-structured interviews and five group interviews were conducted (see Appendix B: 'Respondent Overview'). The choice for individual semi-structured interviews is based on the importance of the respondents' experiences, the context in which it takes place, and the suitability for explanatory research (Saunders, Lewis, & Thornhill, 2019; Verhoeven, 2018). Cases, group, and individual interviews were chosen through purposive sampling, based on the insights of the researcher and stakeholders. Choices were made based on typical and critical cases. Typical cases were selected to provide an understanding of a typical situation, and critical cases were selected for their specific expertise (Saunders, Lewis, & Thornhill, 2019) Afterward, snowball sampling was employed to reach saturation. Saturation was reached after six individual and three group interviews.

Member Checks

Member checks were used to enhance internal validity (Heijnen, 2018). At least once every two weeks, member checks were conducted with the stakeholders. This also contributes to the reliability of the design research (Verhoeven, 2018). The collected data were also reviewed and verified by the stakeholders, supervising teachers, and end-users (four-eyes principle).

Observations

Observations were conducted based on primary and secondary observations. For the primary observations, the "observer as participant" approach was applied. Observations were recorded in the research logbook. For the secondary observations, information was obtained through the stakeholders. This data was recorded as primary observations in the research logbook.

Cognitive Walkthroughs

Cognitive walkthroughs were performed on the prototypes. A cognitive walkthrough is an evaluation technique in which the tester uses the prototype to perform representative tasks and identify potential issues (General Services Administration, z.d.). This method was used to test the artifact against the design criteria without involving end-users.

Simulations

Simulations were conducted using the different prototypes, including testing micro-interactions. The simulations were performed with end-users and served as a beta test. Micro-interactions are an evaluation technique that zooms in on specific interactions during the simulation (Shum, et al., z.d.). Both the simulation and micro-simulation were used to identify limitations and issues within the artifact.

Interpretation

Tuning model & key design criteria

The tuning model offered significant insight into which coordination mechanisms and strategies were utilized within the test case (see

Appendix C: 'Example insight tuning model test **case**'). The test case also revealed three key design criteria for designing a matching tuning strategy based on the insights of the tuning model. The three key design criteria are interdependence, hours intensity, and user-friendliness.

Interdependence

The artifact should provide insight into interdependence. All the respondents indicated that they had an insufficient understanding of the interdependency between the various district and regional teams. This aligns with the literature and the proposition by Malone and Crowston (1990), that without interdependence, there is nothing to coordinate and subsequently tune.

Hours Intensity

The artifact should have low hours of intensity. All the respondents mentioned that they had insufficient time. A respondent states: "It simply requires extra effort [tuning]. [...] Time is always [too] scarce, to fully engage in all kinds of tuning and coordination". This aligns with the emotionally perceived infinite consultation - 'you can fill your week with meetings' - and tuning within the test case and the wider playing field in which they operate (Gestel, et al., 2021; Kapteyn, 2001; Nelen, Van Wingerde, Bisschop, & Moerland, 2023). This can be attributed to the following impasse. To maintain an overview and encourage coordination among (sub)projects, a significant amount of tuning needs to take place. However, this leaves little time for executing the discussed actions (Flight, Bogaerts, Korf, & Siegel, 2010; Nelen, Van Wingerde, Bisschop, & Moerland, 2023).

User-Friendliness

When designing an artifact, user-friendliness, and acceptance are crucial. User-friendliness determines whether a product can be used and acceptance of the way it is used (Bevanan, Kirakowskib, & Maissela, 1991). Additionally, all respondents indicate that they consider user-friendliness important.

Estimating effectiveness

To estimate the effectiveness of the possible tuning solutions, a matrix was used to grade the solutions on three levels: good, neutral, and bad (see Table 4: 'Selection-matrix; estimation of the effectiveness of the possible tuning solutions').

Tuning solution	Interdependence	Hour's intensity	User-friendliness
<i>Solution #1</i>	Bad	Neutral	Good
<i>Solution #2</i>	Bad	Neutral	Good
<i>Solution #3</i>	Bad	Neutral	Good

Table 4: 'Selection-matrix; estimation of the effectiveness of the possible tuning solutions'

The matrix offers the possibility to easily weigh solutions based on the effectiveness of the tuning solutions. Other variables can be added to the matrix according to the needs of the organization or projects (see Appendix D: 'Example selection-matrix; test case').

Newly found insights

Agile coordination strategy

During the test case, a discovery was made. The coordination mechanisms 'feedback' and 'programming' and the coordination strategies 'mutual adjustment' and 'standardization of knowledge and skills' are applied within the test case but are insufficient to achieve the desired level of tuning within the test case. However, according to Mintzberg, these are the ways to coordinate in the case of a large team size, high complexity, and dynamic context. Standardization of norms, outputs, or work processes is not feasible within the test case, due to the same complexity and dynamic environment. The research 'Predictive, adaptive and hybrid approaches in projects; consequences for project management' by Silvius-Zuchi and Silvius (2023) provided a possible design direction for the test case. They suggested that a predictive, traditional approach (waterfall) is less useful in a dynamic environment than an adaptive approach (Agile).

In conclusion, an agile coordination strategy for the work processes based on the coordination mechanism standardization can be used in a dynamic context with high complexity and a big team size (see Figure 7: 'Effectivity-matrix; Coordination strategies and when they are effective; revised').

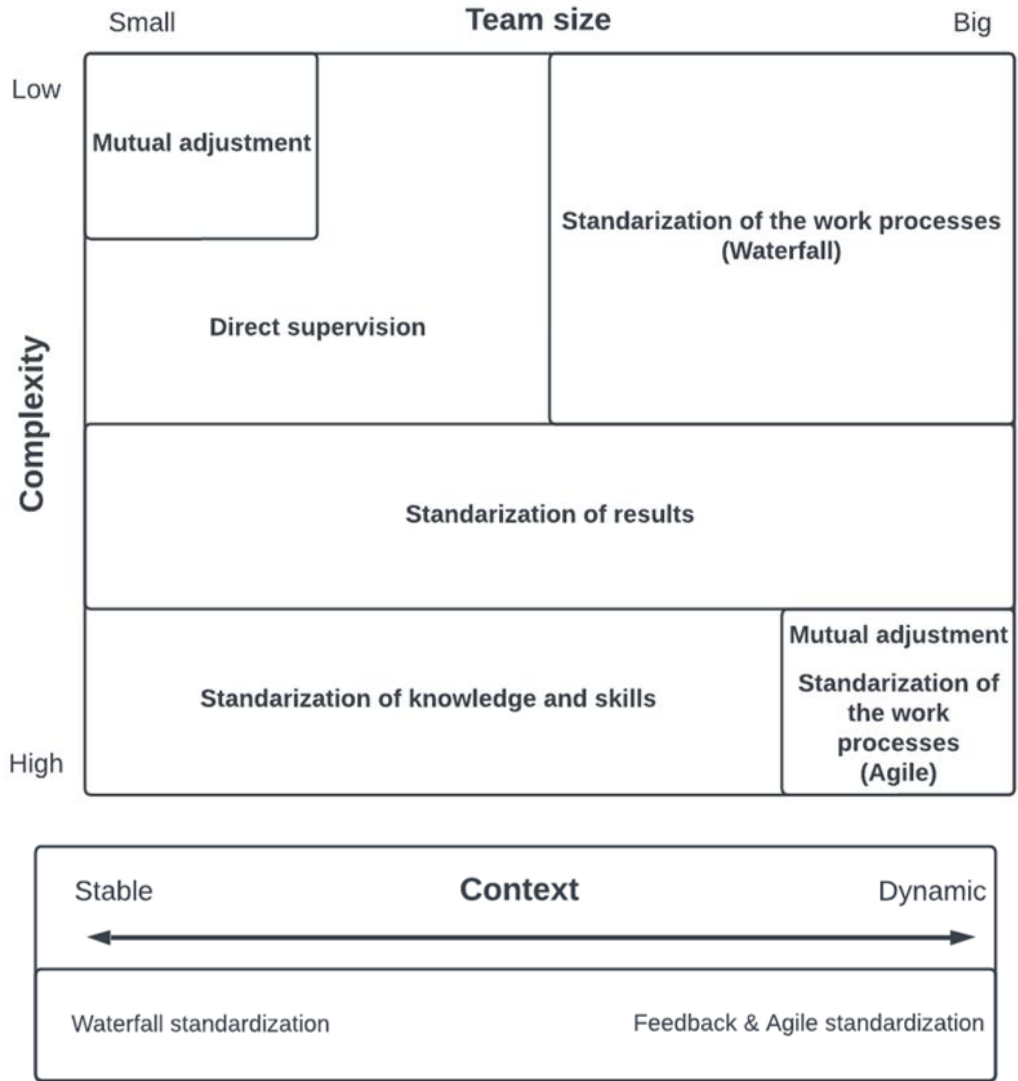


Figure 7: 'Effectivity-matrix; Coordination strategies and when they are effective; revised'

Conclusion & discussions

Conclusion

This study aimed to develop a more comprehensive tuning model for project management, providing project managers and organizations with an effective tool to enhance tuning within their projects or organizations. To evaluate and improve the effectiveness of the tuning model, a specific test case was conducted within the framework of critical realism, using design research.

The tuning model serves as a valuable tool for gaining an overview of the available coordination mechanisms and strategies. It enables project managers to understand which coordination mechanisms and strategies are currently being utilized within the organization and which ones are not (see Figure 4: Tuning model). This understanding empowers project managers and organizations to make informed decisions on enhancing the existing coordination mechanisms and strategies or incorporating new ones, based on the effectiveness of certain coordination strategies (see Figure 7: 'Effectivity-matrix; Coordination strategies and when they are effective; revised'). To give more substance to these new coordination strategies, the three key design criteria - interdependence, hours intensity, and user-friendliness - can be utilized. These design criteria provide guidance for implementing and designing a matching tuning strategy (see paragraph

Tuning model & key design criteria). Additionally, the matrix presented in Table 4: 'Selection-matrix; estimation of the effectiveness of the possible tuning solutions' aids in determining which coordination strategy aligns best with the organization's needs.

In conclusion, the newly developed tuning model, along with the effectivity-matrix, design criteria, and selection-matrix, offer practical assistance in understanding, implementing, and evaluating coordination mechanisms and strategies within projects and organizations.

Discussion

First step & suggestions for future research

Firstly, this research is pioneering in nature and represents an early stage of research. Sudman (1983) argues that in the initial stages of design research, lower quality of respondents can be justified when developing hypotheses and measurement procedures for the first time. This study should be considered an initial step toward a broader understanding of tuning. Consequently, further testing and cross-validation of the tuning model is necessary to ensure its robustness and validity.

Mutual adjustment & Agile standardization

According to Mintzberg (1991; 1992), 'mutual adjustment' is the right coordination strategy for situations within a high complexity, big team size, and dynamic context. However, in the test case, it has been found that relying solely on mutual adjustment is not sufficient. One possible explanation for this result is that if the coordination strategy of 'mutual adjustment' lacks support, it can become incapacitating.

The research findings suggest that standardization of the work processes through agile provides the possibility of standardizing the work processes within a high complexity, big team size, and dynamic context. Consequently, agile standardization of the work processes can offer appropriate support for the coordination strategy of 'mutual adjustment.' This finding contradicts Mintzberg's (1991; 1992) organizational typologies. Nonetheless, this aligns with the researcher's expectations and the study conducted by Silvius-Zuchi en Silvius (2023) on predictable, adaptive, and hybrid approaches in project management.

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Appendix

Appendix A: 'Test case explained'

The tuning model is tested within an organization in the Netherlands whose main objective is to establish a unified government against organized crime. This organization is split geographically (district teams) and based on knowledge (regional teams). The organization is visualized in Figure 8: 'Organizational chart - test case'.

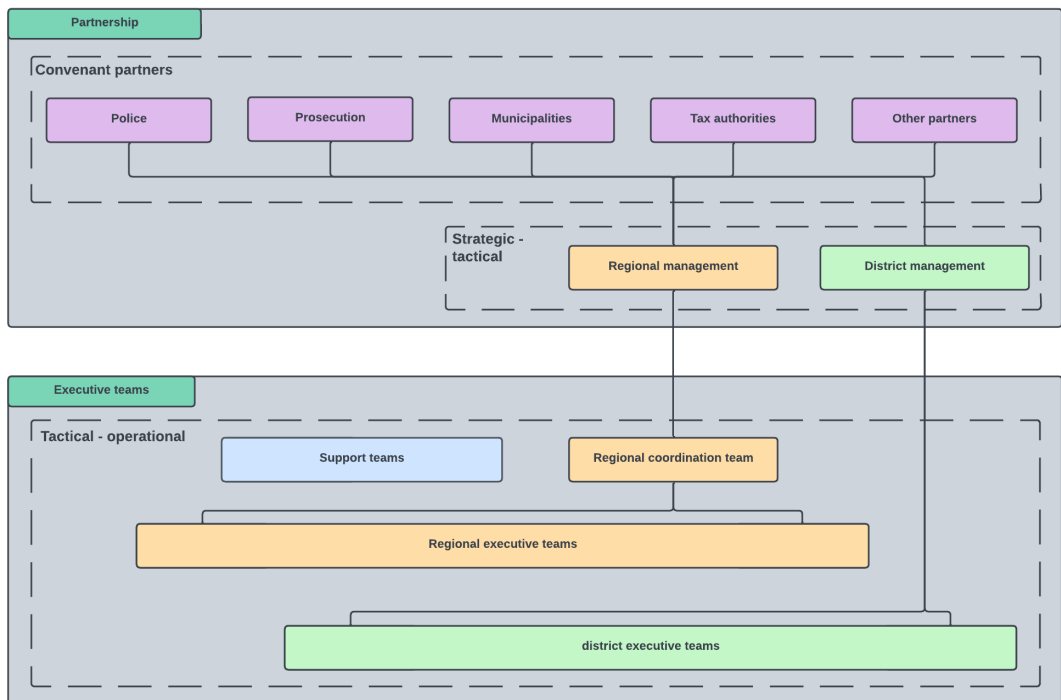


Figure 8: 'Organizational chart - test case'

The organization operates with a large and growing team size, encounters high complexity, and operates within a dynamic context. Consequently, the organization faces challenges in tuning and coordinating its work internally and externally.

Appendix B: ‘Respondent Overview’

#	Function and corresponding team
1	Employee support team
2	District project leader
3a	Operations Coordinator
3b	
4	Regional project leader
5	Employee support team
6a	District program leader
6b	
7	Regional program manager
8	Regional project leader

Table 5: ‘Respondent overview individual interview’

#	Date	Representative for
99	DPM-meeting (18/1/2023)	District project leaders - Eight regional project leaders
98	Focus group tuning (21/2/2023)	District and regional project leaders - 24 District and regional project leaders

97	DPM-overleg (21/3/2023)	Regional project leaders - Eight regional project leaders
96	Quarterly meeting (11-5- 2023)	Simulation
95	Quarterly meeting (15-5- 2023)	Simulation
xx	Member checks	District project leader and regional program leader

Table 6: ‘Respondent overview group interview and simulations’

Appendix C: ‘Example insight tuning model test case’

The coordination mechanisms 'feedback' and 'programming' and the coordination strategies 'mutual adjustment' and 'standardization of knowledge and skills' are applied within the test case but are insufficient to achieve the desired level (circled in blue in Figure 9).

At the same time, according to Mintzberg, these are the right coordination strategies for situations with a high complexity, big team size, and dynamic context. Standardization of norms, outputs, or work processes is not yet used within the test case (circled in red in Figure 9). Because standardization of norms, outputs, or work processes as coordination strategies is not feasible within the test case due to the same complexity and dynamic environment.

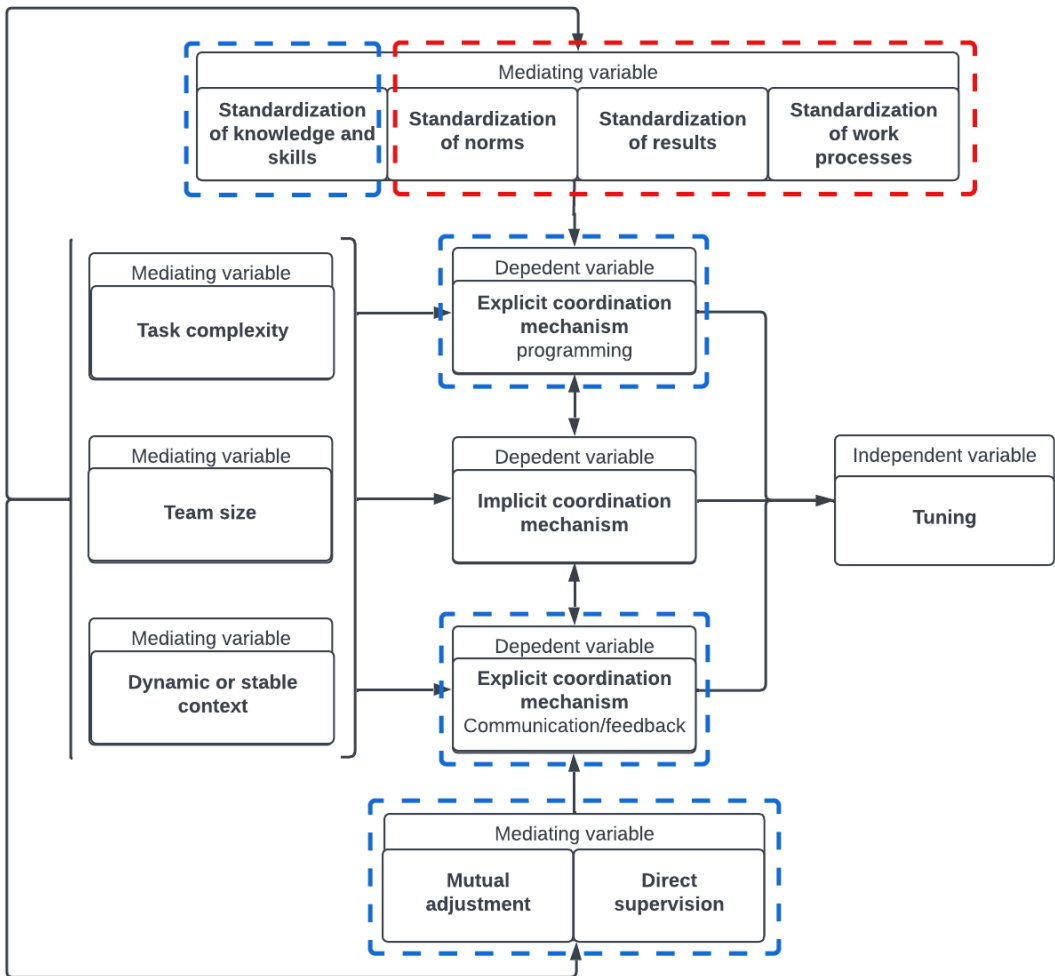


Figure 9: ‘Tuning model with used coordination mechanisms and strategies circled blue and used red’

Based on Figure 9, it becomes apparent that standardization of norms, outcomes, or work processes emerges as the sole alternative with a high complexity, big team size, and dynamic context. This presents a creative gap, as standardizing work in a dynamic and complex environment proves challenging.

The research by Silvius-Zuchi and Silvius (2023) provides a potential design direction. They argue that in dynamic environments, an adaptive approach is more effective than a predictive approach. Consequently, it is crucial to develop an Agile coordination strategy based on the coordination mechanism of standardization.

Appendix D: ‘Example selection-matrix; test case’

Ideas	Interdependence	Hour’s intensity	User-friendliness	DevOps & Agile
Internal agreements	B	G	N	G
Buddy system	B	G	G	G
Social map	N	G	G	N
Tuning meetings	N	B	N	G
DTO-Dashboards	G	N	G	G
Portfolio management	N	N	N	N
Commanders’ intent	B	G	G	N
Decision tree	B	G	G	N
Manual	B	N	N	B
Checklist	B	N	N	B
Daily podcast	N	B	G	G
Quarterly meetings	N	G	G	G

Table 7: ‘Example selection-matrix; test case’

Analysis of elemental composition, fabrication texture and inclusions in pottery samples from Vashtemia, site of the Early Neolithic period in Albania

Erinda Ndreçka

University of Tirana, Faculty of History and Philology, Department of Archaeology and Culture Heritage, Tirana, Albania

Abstract

A necessary expansion of the study on human behaviour and social organization in prehistoric periods leads us to study in more detail the elemental composition of the materials the products of human activity, such as ceramics, were made of. It takes the main place in the production of this period and its analysis helps us to know more about the advancement of production technologies and shed light on the origin of clay sources.

From the Vashtemia site, a number of samples have been selected for analysis, by means of different techniques, in order to identify the raw materials used for the production of ceramic vessels, the technique of surface processing, the style of decoration and also to understand the construction of the furnaces used for clay firing, starting from the characterization of the mineral phases of the ceramics that we studied.

Keywords: Vashtemia, prehistoric periods, ceramics, raw materials, spectrometry analysis.

Introduction

Due to the stages of internal development of the Albanian territory as well as geographical, economic and cultural factors, based on the comparative studies of the cultures found in the Early Neolithic in Albania, this era is characterized by significant regional changes (Prendi&Bunguri, 2013, pp. 49-54).

Aiming to present the differences of the basic features of the development of the Neolithic culture in Albania according to the geographical divisions of the territory, we must determine the place that this part of the eastern Adriatic occupies in the

chronology of the development of the Balkan peninsula. (Prendi&Bunguri, 2013, pp. 49-54).

In the Balkan region, there are two main cultural complexes that stand out in the Early Neolithic era. The first is the Balkan-Anatolian group, within which there are several groups with cultural differences, with barbotine, impressed, monochrome and painted ceramics. The second group is the Adriatic-Mediterranean one developed with impressocardium ceramics. (Benac, A., 1971, pp. 97-108).

As part of this region, the territory of Albania, located geographically in the corridor of the intersection of these two main Neolithic cultures, developed in a differentiated way under the influence of the culture of the Adriatic-Mediterranean complex as much as it is influenced by the special groups of the Balkan-Anatolian complex making the Neolithic settlements in Albania develop and evolve differently according to the cultural groups they belong to.

The Neolithic settlement of Vashtemia, which is taken as a case study in this article, is part of the cultural group called "Podgorie-Vashtemia Group" located in the Southeast of Albania with its epicenter in the Korce basin. This settlement lies in a flat alluvial field and the first data on the discovery of this settlement belong to 1972, which were followed by other archaeological excavations in 1973 and 1974. (Korkuti, M., 1982, pp. 91 -146). In this site, what stands out is the considerable depth of the cultural layer, which varies from 0.75-1.60m. Ceramics are among the most numerous archaeological materials throughout the depth of the layer and are presented in several categories such as: monochrome ceramics, bright red ceramics, painted ceramics, monochrome gray and black ceramics and more limited Barbotine ceramics (Prendi&Bunguri, 2013, pp. 49-54). Gjipali, I., 2012, pp. 205-243). (E. Allen, S., & Gipli, I. (2015), pp. 41-51)

Typological analysis of the samples taken in the study

We have tried to divide the samples that we have selected to analyze from the Vashtemia site into several main categories in which the following stand out:

- painted ceramics (which also occupies the main spot, so it appears in a larger number of samples)
- monochrome ceramics with red color
- dark gray monochrome ceramics (which has more limited use)

The group of samples selected from the Vashtemia site includes 31 samples, of which 14 belong to thin-walled vessels and the other 17 to thick-walled vessels. The main place in these samples is occupied by fragments with light red color, usually with weak luster and a smaller part of them have remnants of decorations on the surface.

Dark gray monochrome pottery is represented by some fragments of thick-walled vessels. What is worth mentioning in this case, is that the clay is less selected and often the thick grains of sand are visible on the surface.

In the group of samples from Vashtemia, although in a limited number, the mixture of clay with sand and straw is evident.

If we focus on the decorative elements, painting decorations occupy the main place compared to other decorative techniques. In most cases, the fragments are painted with white paint on the polished surface of the vessel, and are more often evident in the ceramic samples that belong to thin-walled vessels.



Figure 1. View from a part of the group of ceramic samples from the Vashtemia site. In the samples from the Vashtemia site, it can be easily understood that the baking is not complete, a fact that is also evidenced by the non-uniform color of the cross-section of the samples. In almost all the samples, the presence of a dark layer can be observed between the two side bands with red color (Fig 2). Many authors explain this phenomenon with the baking conditions of the clay dough. (Heimann, R. B. & Maggett, M. 2001, pp. 924) (Correns, C.W., 1968, pp. A199-A200) (Hardmeyer et al., 1995, pp. 30) (Maggetti, M. 1995) Tite & Kilikoglou, V. et al, 2002, pp. 1-5).

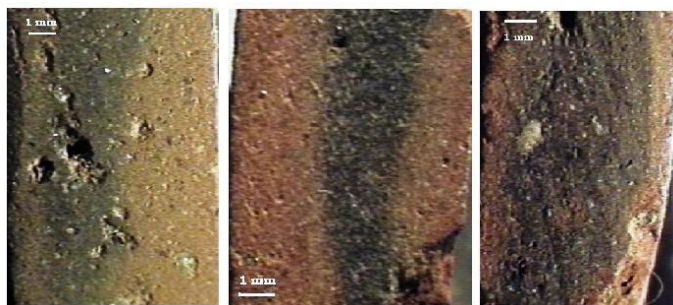


Figure 2. Photo of the cross-section of some ceramics from Vashtemia taken with μ -FRX.

Analyzing the elemental composition

Tables 1 and 2 present the results of the analysis of the elemental composition of the samples selected for analysis from the Vashtemia site. Also, in addition to the samples of ceramic vessels, we have also included in the study some samples of clays collected by archaeologists around the settlement of Vashtemia, which belong to the soils collected in different layers during excavation.

The analysis of the elemental composition of the major elements shows that a group of samples have similar compositions (Tab 1 and 2, Fig 3). The content of potassium oxide K_2O varies between 1.3 - 2.5%, that of calcium oxide CaO between 1.7 - 3.7%, titanium dioxide TiO_2 0.6 - 1% and iron oxide Fe_2O_3 6.3 - 10.9%. Three of the clay samples have content of major elements similar to that of ceramic vessels, while the other two are apparently of a different composition, especially with a high percentage of calcium oxide.

Based on the analysis of the results of the percentage of calcium oxide CaO in the ceramic samples of the Vashtemia site, they result in values lower than 5%, so they are ceramics with low calcium (non-calcareous).

If we try to make a comparison between the samples of vessels with thick walls compared to those of vessels with thin walls, it is noticed that the raw materials used in each case are similar.

Table 1. Content of major elements (%) in ceramic samples of thick-walled vessels from the Vashtemia site.

Sample Code	K_2O	CaO	TiO_2	Fe_2O_3
KVt-1	2.24	3.07	0.72	10.86
KVt-2	1.89	2.57	0.65	7.67
KVt-3	1.80	2.06	0.69	8.14
KVt-4	2.14	2.26	0.91	7.72
KVt-5	2.30	3.16	0.90	8.36
KVt-6	2.39	1.89	0.79	7.37
KVt-7	1.96	2.48	0.74	7.54
KVt-8	1.83	1.98	0.74	8.13
KVt-9	1.84	2.00	0.65	7.90
KVt-10	2.26	2.23	0.99	7.54
KVt-11	2.14	2.07	0.92	7.24
KVt-12	2.21	2.01	0.93	7.03
KVt-13	1.28	1.98	0.89	6.94
KVt-14	2.21	3.08	0.90	8.10

KVt-15	2.14	3.73	0.74	7.52
KVt-16	2.04	2.20	0.85	7.94
KVt-17	2.36	2.07	0.99	7.42

*KV-Ceramic sample from the Vashtemia site, thick-walled vessel, the number represents the inventory code in the fund of the Institute of Archaeology, Center of Albanological Studies, Tirana.

Table 2. Content of major elements (%) in ceramic samples of thin-walled vessels from the Vashtemia site.

Sample Code	K₂O	CaO	TiO₂	Fe₂O₃
KVh-1	2.55	1.72	0.90	7.57
KVh-2	2.13	2.10	0.85	6.86
KVh-3	2.30	2.53	0.80	7.76
KVh-4	2.41	3.11	0.94	8.14
KVh-5	2.11	1.98	0.93	7.59
KVh-6	1.97	2.56	0.69	7.33
KVh-7	2.32	2.64	0.85	8.34
KVh-8	2.13	3.16	0.72	8.52
KVh-9	2.07	3.25	0.74	9.57
KVh-10	2.08	2.13	0.83	6.29
KVh-11	2.09	2.29	0.94	7.42
KVh-12	2.53	2.22	0.94	8.23
KVh-13	2.42	2.28	0.97	8.52
KVh-14	2.14	2.41	0.84	7.99

*KV-Ceramic sample from the Vashtemia site, thin-walled, the number represents the inventory code in the fund of the Institute of Archaeology, Center of Albanological Studies, Tirana.

Table 3. Content of major elements (%) in clay samples from the Vashtemia site.

Sample Code	K ₂ O	CaO	TiO ₂	Fe ₂ O ₃
V. clay sample Nr. 1	2.66	1.41	0.84	5.77
V. clay sample Nr.500	3.12	14.07	0.64	5.17
V. clay sample Nr. 501	2.31	1.04	0.79	8.26
V. clay sample Nr. 502	2.42	12.87	0.61	6.03
V. clay sample Nr. 503	2.13	0.61	0.82	6.22

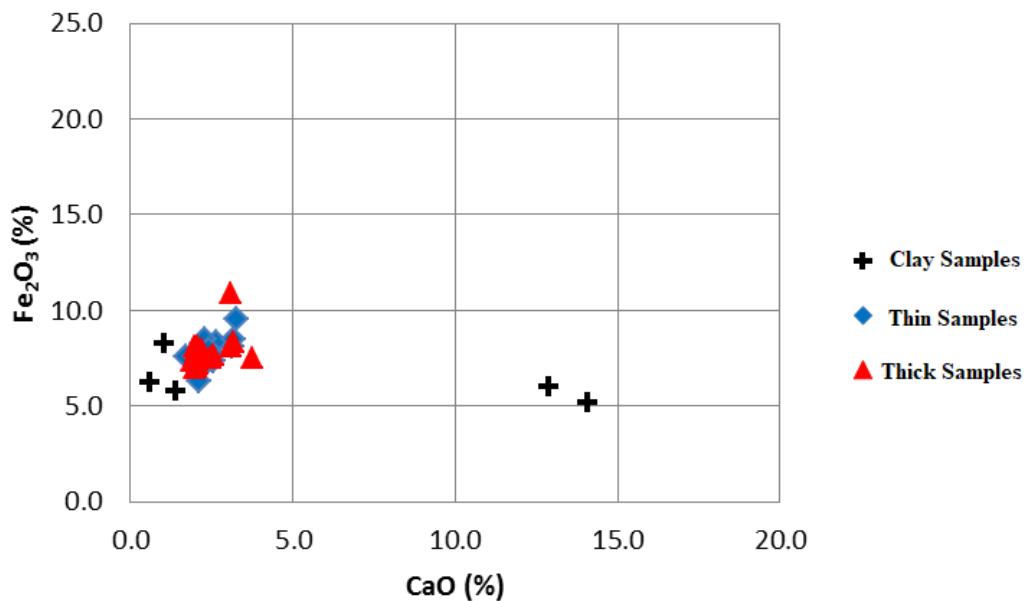


Figure 3. CaO – Fe₂O₃ graph for Vashtemia ceramics and clays

Table 4. The content of minor elements (%) in the ceramic samples of thick-walled vessels from the Vashtemia site.

Sam ple Cod e	V	Cr	M n	Ni	C u	Z n	G a	R b	Sr	Y	Zr	P b	T h	Ba	L a	C e	N d
KVt- 1	1 8 4	20 4	80 1	1 3 0	1 3 2	1 4 6	1 1 5	1 0 1	1 8 0	3 3 4	1 6 7	1 1 3	1 1 4	88 4	2 2	6 0	2 9
KVt- 2	1 6 6	16 9	91 8	1 3 4	2 9	9 5	2 0	8 5	1 9 9	5 1	1 2 0	1 1 2	1 1 7	81 9	2 5	6 5	3 4
KVt- 3	1 6 0	12 26	10 23	4 7 6	1 3 6	1 0 9	1 1 6	7 5	1 7 8	7 2 3	1 7 6	4 3	6	84 0	1 1	4 6	1 4
KVt- 4	2 2 4	15 8	70 4	1 1 3	2 1	1 0	2 3	1 9	1 8 5	3 4	2 2 9	3 1	1 7	92 8	2 2	6 0	1 9
KVt- 5	2 2 3	16 0	96 2	1 1 7	3 2	0 5	2 0	0 8	0 5	4 4	0 2	4 2	1 2	88 0	2 6	6 7	1 8
KVt- 6	2 6 1	13 4	91 6	1 2 3	3 6	2 4	2 6	0 9	1 0	3 1	3 4	2 3	9	95 4	1 7	5 7	2 2
KVt- 7	2 1 7	48 2	85 8	2 1 4	2 2 5	1 1 0	1 4	8 1	1 3	3 4	1 6 0	1 1 9	1 1 5	10 01	1 9	5 3	2 5
KVt- 8	1 6 6	45 2	95 9	2 2 5	2 9	9 7	2 0	8 1	7 0	3 8	1 7 5	2 3	1 5	70 2	1 9	5 4	2 7

KVt-9	2 4 6	13 51	10 37	4 5 7	3 6	1 2	7 7	1 5	1 8 0	2 4	1 6 8	1 1 0	1 1 4	85 3	1 1	4 5	1 9
KVt-10	2 1 3	64 8	10 62	1 2 2	2 2	1 2 6	2 2 3	1 1	1 2	2 2	3 0 0	3 1	1 5	94 5	2 4	7 3	2 1
KVt-11	2 6 9	13 9	73 1	1 1 6	3 0	1 1	2 5	1 0 6	1 9 6	3 3	2 6	3 2	1 5	10 32	1 7	6 1	2 4
KVt-12	1 6 1	30 8	70 4	1 1 2	2 1	1 7	1 8	1 0 2	1 8 2	3 0	2 5 6	4 7	1 5	10 29	2 0	5 8	2 3
KVt-13	1 9 3	19 6	69 4	1 0 5	1 3	1 2	1 7	1 0 5	1 8 2	2 9	2 6	1 8	2 0	10 34	2 3	6 2	2 5
KVt-14	1 3 8	18 9	99 8	1 1 0	2 2	1 3	2 0	1 0 8	2 0 5	4 0	2 8	4 0	1 9	87 6	2 8	7 2	3 3
KVt-15	2 3 6	21 0	95 2	1 1 3	2 1	9 9	2 0	9 6	2 3	3 6	1 7 4	1 6	1 6	89 0	2 5	6 4	2 5
KVt-16	1 5 1	33 5	74 8	1 2 8	2 4	1 3	2 5	1 8	1 8 7	3 6	3 7	2 9	1 5	90 5	2 8	6 6	2 7
KVt-17	2 3 0	31 6	10 38	1 2 3	2 0	2 2	2 3	1 6	2 1 3	3 4	3 0 9	3 4	1 5	94 5	2 2	7 5	2 8

Table 5. The content of minor elements (%) in the ceramic samples of thin-walled vessels from the Vashtemia site.

Sample code	V	Cr	Mn	Ni	Cu	Zn	Ga	Rb	Sr	Y	Zr	Pb	Th	Ba	La	Ce	Nd
KVh-1	186	239	929	137	277	136	188	130	170	400	300	285	15	872	30	74	27
KVh-2	167	185	592	110	200	103	199	118	192	300	247	273	13	978	20	49	22
KVh-3	189	303	867	156	266	130	108	104	199	382	242	218	18	1153	21	63	24
KVh-4	134	238	1233	120	322	132	266	111	222	388	267	283	13	1021	26	73	26
KVh-5	201	156	794	121	270	100	211	133	178	288	260	286	16	970	17	64	22
KVh-6	237	151	862	129	229	98	167	87	206	542	142	166	16	1060	28	64	34
KVh-7	96	218	1044	135	355	134	233	122	488	439	269	492	12	1038	28	76	28
KVh-8	163	235	666	153	244	101	177	106	203	399	186	412	12	896	28	70	24
KVh-9	300	149	760	123	200	105	188	86	788	422	123	133	15	1107	26	61	31

KVh-10	2 0 9	4 0 9	89 9	1 5 1	2 6	1 2 3	1 1 5	1 1 6	2 1 1	3 0 2	2 0 2	1 1 4	1 1 8	10 78	1 7	5 7	1 5
KVh-11	2 8 5	2 6 8	10 32	9 6	1 7	0 0	1 9	0 1	2 4	3 8	2 6 1	1 1 6	1 1 8	10 86	2 8	6 8	2 3
KVh-12	2 2 2	3 0 2	12 19	1 5 6	2 9	3 9	2 1	2 2	0 0	4 6	7 7	3 4	1 8	92 7	2 9	7 8	2 3
KVh-13	2 7 4	2 8 0	11 96	1 3 9	1 5	3 2	1 9	2 1	0 1	4 3	5 0	1 8	2 2	92 4	3 2	8 0	2 5
KVh-14	2 2 8	2 5 5	84 4	1 1 4	2 2	2 4	2 0	1 6	2 2	3 6	4 3	2 3	1 9	97 6	3 0	6 6	2 5

Table 6. Content of minor elements (%) in clay samples from the Vashtemia site

Sample Code	V	C r	M n	Ni	C u	Z n	G a	R b	Sr	Y	Z r	P b	T h	B a	L a	C e	N d
V.clay sample Nr. 1	3 2 8	5 9 7	9 5 8	1 1 8	1 3	9 0	4	1 2 3	9 1	3 1	7 9	3 9	8	5 3 1	3 8	7 8	3 7
V.clay sample Nr.500	3 1 8	2 5 5	5 4 6	1 0 6	1 6	1 0 6	5	1 2 9	2 7 7	2 2 7	2 3 2	4 1 1	1 1 1	6 2 1	3 4 0	5 5	2 8
V.clay sample Nr. 501	4 5 5	9 2 6	9 9 5	5 8 6	1 7 7	7 9	8	1 1 9	5 6	3 1	9 9 8	4 1 3	1 0	3 4 3	3 0	6 0	3 0

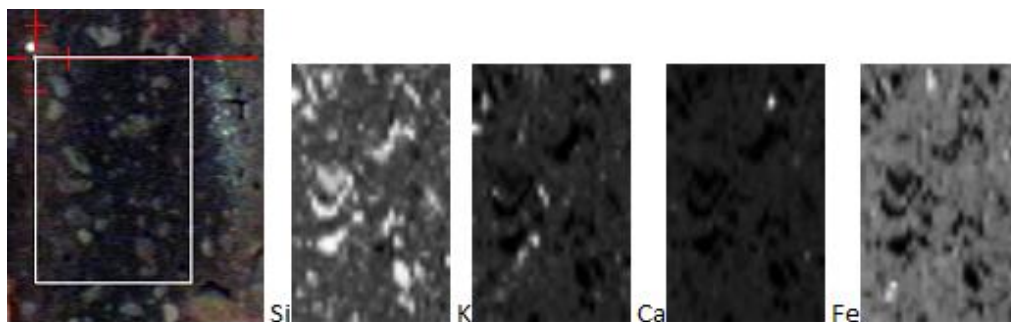
V.clay sample Nr. 502	2 0 9	5 7 5	7 1 1	3 9 1					1 7 3		1 2 4				2 6 3			
V.clay sample Nr. 503	3 2 7	5 0 6	7 9 2	1 6 0					1 1 5			2 6 4			3 3 5			

Mineralogical characterization

In our study, the mineralogical characterization of the ceramic samples analyzed is mainly based on the petrographic study and X-ray diffraction of a selected number of samples. We have also used the μ -XRF method, for the partial characterization of the inclusions that can be observed with the eyes in the clay samples, always bearing in mind that this information is partial due to the limited spatial resolution (0.1 x 0.1 mm) of spectrometer.

The figures below show the distribution maps of the major chemical elements in the inclusions observed in some of the ceramic samples from the Vashtemia site. What stands out is that in the inclusions analyzed, those rich in Silicon predominate, which must be quartz particles. Other elements that are noticed, although in smaller quantities, are particles rich in potassium (K), calcium (Ca), iron (Fe) and manganese (Mn). Based on the size and shape of these particles, they were most likely added as a temper to the clay dough.

KVt-5



KVh-8

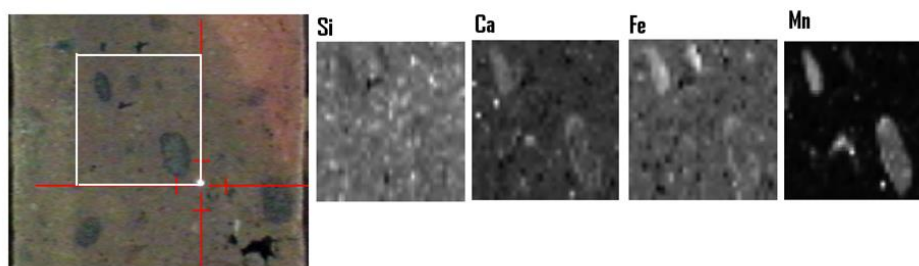


Figure 4. Distribution of major elements in the form of maps in the inclusions of three samples of ceramic fragments from the Vashtemia site.

Petrographic analysis

From the group of samples from the Vashtemia site, we have selected two of them, which belong to vessels with thick walls, respectively, with the designations KVt-2 and KVt-11. These two samples were subjected to petrographic and X-ray diffraction studies.

Sample KVt-11. The matrix (without analyzer) is presented with a reddish color, which is more intense in the center and paler in the periphery, a fact that speaks of a "sandwich" type structure, with good sorting, anisotropic. Aplastic material is represented by minerals such as granular quartz, plagioclase and mica (biotite muscovite) as well as rock fragments (lithoclasts) such as metamorphosed quartzites, serpentinites, amphibolic schists, biomicrites and hematitic pellets. Aplastic material ranges from highly angular (abrasive) to poorly rounded.

Gaps: lens-shaped gaps.

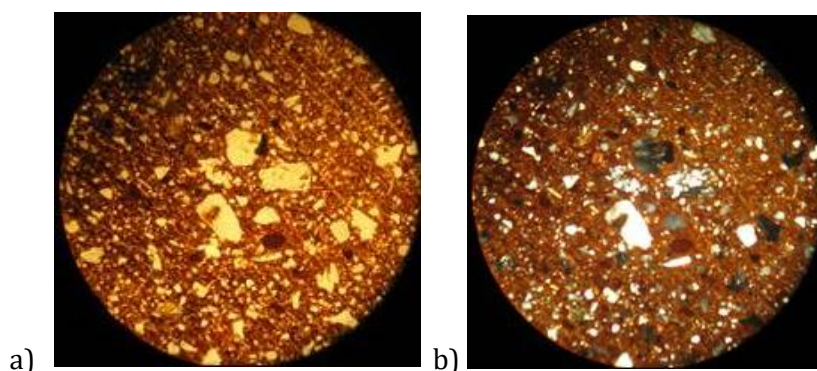


Figure 5. Analysis of the KVt-11 sample with a polarized light microscope (x10)

a) (parallel polars=PPL, and b) crossed polars (=+PL).

Sample KVt-2. The matrix (without analyzer) is presented with a reddish color, which is more intense in the center and paler in the periphery, a fact that speaks of a "sandwich" type structure, with very good sorting, anisotropic. Aplastic material is represented by minerals such as granular quartz, plagioclase and mica (biotite muscovite) as well as rock fragments (lithoclasts) such as polygranular quartz, amphibolic schists, biomicrites and hematitic pellets. Aplastic material ranges from highly angular (abrasive) to poorly rounded, grainy. Carbonate recrystallization material is evidenced.

Voids: lenticular voids, but also cavities.

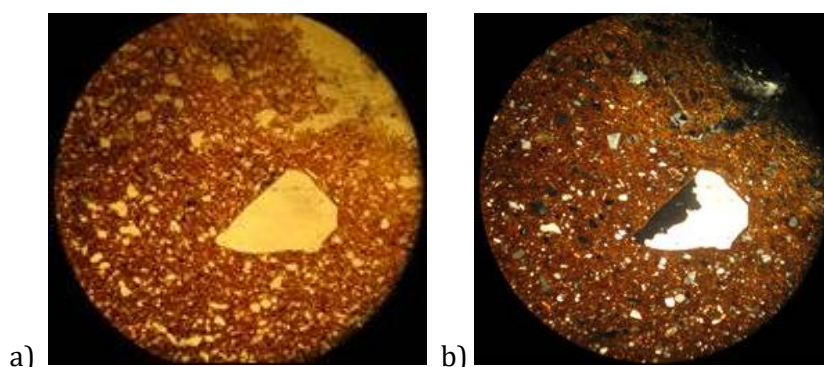
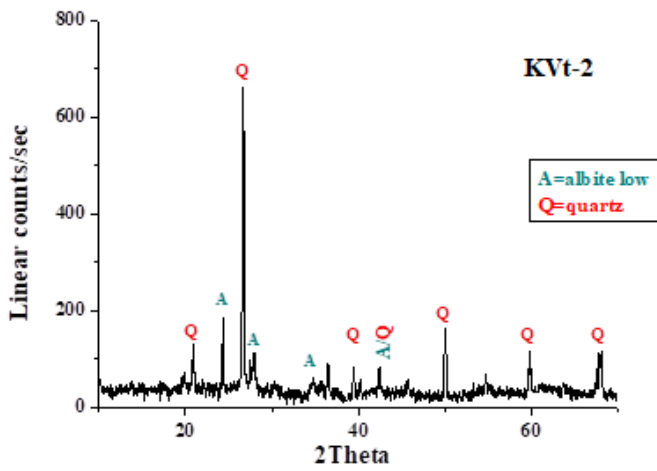
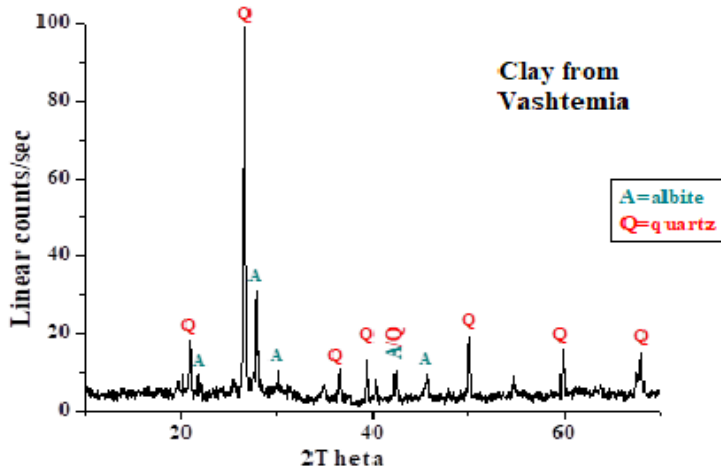


Figure 6. Analysis of the KVt-2 sample with a polarized light microscope (x10)

a) (parallel polars=PPL, and b) crossed polars (=+PL).

X-ray diffractometry analyses

In the samples of ceramic vessels and clays from the Vashtemia site selected to be analyzed by X-ray diffraction, the main phases identified are quartz (SiO_2) and albite ($\text{NaAlSi}_3\text{O}_8$). We think that the low sensitivity of the XRD method does not allow the identification of some minor minerals that have been observed by the petrographic study.



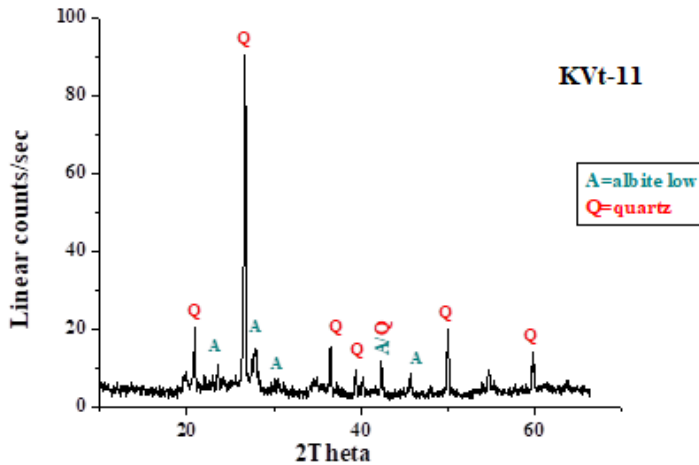


Figure 7. XRD spectra of clay and two samples from the Vashtemia site.

Conclusions

- Since the CaO content in the ceramic samples from the Vashtemia site is lower than 5%, it follows that the clays used are of the low-calcium (non-calcareous) type.
- Comparing the composition of thin-walled ceramics with those with thick walls, testifies to similar raw materials used for each group.
- Thus, both the average values of the groups and the variation of the values do not show any significant difference.
- Petrographic analysis shows low degree of vitrification and presence of recrystallized carbonates. These data suggest baking in an oxidizing environment (open oven or closed oven with final oxidizing stage) and moderate temperature for a short time.
- The presence of the same main phases, quartz and albite, with similar intensities both in the samples and in the clay suggest low reactivity of the mineral phases due to low temperatures in the range of 700 - 750°C.

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Challenges of Winter Tourism in Albania: A Review

Elton Spahiu¹

Entela Kushta²

¹Sports University of Tirana, Faculty of Physical Activity and Recreation,
Department of Physical Activity, Recreation and Tourism, Tirana-Albania,

²Sports University of Tirana, Faculty of Physical Activity and Recreation,
Department of Sports and Tourism Management, Tirana-Albania

Abstract

Albania is known for its unique and stunning natural beauty. Mountains and hills cover a large portion of the region, almost two-thirds of the total surface. The outstanding terrain, with its many cracks and microforms make this country an ideal setting for a variety of outdoor tourism activities, especially during the winter season attracting both domestic and foreign visitors. The current research aims at looking into some of the challenges that Albania's booming winter tourism industry is facing. The first concern identified is scarce and sometimes completely absent infrastructure in remote mountainous areas, which strongly impacts accessibility and guest accommodation. Even though in some areas snow cover is above 100 days, seasonality is still another aspect that highlights the importance of diversifying tourism offer to attract tourists all year. Environmental issues pose a threat for the delicate alpine ecosystems, thus making the implementation of eco-friendly practices and laws for sustainable tourism a must. In addition, the review underscores the vital role of sustainable development, which balances economic growth with environmental preservation. Albania can develop a robust and profitable winter tourism sector by tackling these difficulties through joint efforts and the implementation of evidence-based policies, which will in turn benefit the country's economy, biodiversity, and cultural heritage.

Keywords: outdoor activities, infrastructure, seasonality, sustainability

Introduction

Tourism has proved to be a critical component of global economic development and an important source of revenue for both developed and emerging economies, since it provides a variety of cultural, social, technical, experiential, and natural items for

leisure and business. This is also the case with Albania which is experiencing a growth in tourism sector, despite being a small country with a vulnerable economy. According to the 2019-2023 National Strategy for Sustainable Tourism Development, the tourism sector is anticipated to contribute 9.3% of the GDP by 2028, a considerable increase in the sector's economic impact. As a result, it is predicted that by 2028, the direct and indirect effects of the tourist sector would account for around one-third of Albania's overall GDP (Republic of Albania, 2019). According to estimates from the World Tourism and Travel Council [WTTC], in 2019 travel and tourism served as a significant economic engine and job creator, contributing 20% to the Albanian economy and creating 244,000 jobs, or one in every five jobs in Albania (WTTC, 2022).

Albania's law system places a strong emphasis on preserving the nation's extensive natural and cultural heritage in order to capitalize on the potential for tourist expansion. The Republic of Albania (2015) defines steps to protect historical buildings, traditional architecture, and ecologically significant places in the Law on Tourism (No. 93/2015). This dedication to maintaining Albania's cultural identity and natural diversity guarantees that tourism development is carried out ethically, enabling travelers to immerse themselves in the country's true essence while preserving its distinctive history for future generations.

In addition, Albanian tourism legislation emphasizes the promotion of environmentally and socially responsible tourist strategies. The 2019 National Strategy for Sustainable Tourism Development outlines policies to strike a balance between economic development, environmental protection, and social well-being. Albania wants to develop a resilient and sustainable tourism business that benefits both visitors and host communities by sticking to this plan.

Albania's terrain may be most notable for its multiple succeeding mountain ranges, which have an average elevation of more than 700 meters. The majority of the mountains, including the Albanian Alps, are located to the west's lowlands' north, east, and south. The Korab Mountains, with peaks that may exceed 2,500 meters, dominate the east of the nation and stretch 40 kilometers along its eastern border. A rich biodiversity and mountainous terrain with glacial lakes, caves, river valleys with clear waters, and mountain saddles draw both domestic and international visitors who engage in ecotourism activities like hiking, mountaineering, biking, snow skiing, and snowshoeing, among others.

Given that the majority of the country is mountainous, it is not surprising that Albania's winter tourism industry has recently gained attention from both local and foreign tourists. But like any expanding business sector, it confronts a number of difficulties that call for meticulous planning and thought. The main obstacles to winter tourism in Albania are examined in this scientific review, with an emphasis on infrastructural constraints, seasonality problems, environmental difficulties, and the

need for sustainable growth. Albania can encourage a vibrant and robust winter tourist business by being aware of and addressing these issues.

Methodology

For the purpose of this study, we undertook a systematic and thorough investigation of the academic database, which included journals, academic articles, and pertinent government publications on tourism in Albania. The terms "Albania mountain tourism challenges," "Albania winter tourism issues," and others of a similar nature were used as keywords. The review's contributors chose the articles and papers based on how pertinent they were to the subject. Included sources were necessary to examine the issues and difficulties the Albanian winter tourism sector faced. The search included published works up to the present, with a focus on works from the previous two decades.

Key issues, trends, and insights relating to winter tourism in Albania were identified using information and data that was gathered from the sources included. Based on recurrent themes and issues, the data synthesis process involves categorizing and organizing findings. The value of each source was evaluated by taking into account elements like credibility, research methods (for empirical studies), and topical relevance. The analysis gave preference to credible, peer-reviewed sources. The findings extracted from the selected literature were subjected to a thematic analysis. Common problems and challenges faced by winter tourism in Albania were identified, and these findings were organized into structured sections for the review article. The analysis also considered potential solutions proposed in the literature.

As this review article is based solely on previously published literature, there are no ethical concerns related to human subjects. Proper citation and referencing practices are strictly followed to ensure academic integrity and give credit to the original authors.

While this review article aims to provide an in-depth analysis of the problems of winter tourism in Albania based on existing literature, it is important to acknowledge potential limitations. These limitations may include publication biases, changes in the tourism landscape beyond the literature review's cutoff date, and the quality of the available sources.

Infrastructure Limitations

One of the major obstacles for winter tourism in Albania is the lack of infrastructure in mountainous areas. The absence of effective transportation links and lodging amenities limits travelers' mobility and ease of access. 80% of the hotels are located on the seaside area; 10% are in the capital; and just 10% are located in other parts of the country, including mountainous regions (Burlea-Schiopoiu & Ozuni, 2021).

One explanation for the modest number of hotels and guesthouses in the mountains might be that the profit margin on investment in expanding tourism in these places is relatively poor, despite the fact that agro-mountain tourism has become particularly appealing to visitors as a result of the COVID-19 pandemic. For example, in 2012, there were 150 guesthouses in the country's most popular mountain areas (Thethi, Kelmendi, and Valbona in northern Albania, Dardha and Voskopoja in the southeast), and by the beginning of 2016, their number had increased by 13 units to 163 (Burlea-Schiopoiu & Ozuni, 2021). And even when these facilities exist, they are mostly family run businesses rather than large professionally managed groups, which in turn affects the quality of service.

What adds more to the limited infrastructure in these areas is the absence of specialized facilities needed to practice activities typical for the winter season, such as skiing or other snow based activities. There are just a few unequipped ski areas, and the first surface lift was completed in 2012. Skiing regions are not resorts, but rather communities in the mountains where one may go skiing, comparable to the Alps a century ago. There are just ten ski areas, although none have five or more lifts, according to the 2022 International Report on Snow & Mountain Tourism (Vanat, 2022). Albanian skiers are limited in number, and for many years, the local environment did not encourage the growth of this sport, even if it was not an unknown recreational activity. Albanians would rather fly to other countries, mostly neighboring ones, which have a far better situation as regards skiing facilities. Backcountry skiing as a winter pastime is mostly practiced by foreigners.

All of this emphasizes the significance of investing in modern infrastructure to improve accessibility to key winter destinations and boost accommodation capacity. Collaboration between the government, commercial sector, and local communities is critical to overcoming these constraints and improving the overall visitor experience.

Seasonality Issues

The high frequency of tourist visits at specific times of year has a significant impact on sustainability. In reality, it not only substantially decreases the sustainability of businesses and their ability to provide year-round employment, but it may also put a strain on communities and natural resources at times, leaving an oversupply of capacity at other times of the year (Selmanaj, Gorica & Murati, 2018).

According to INSTAT data, tourist nights in August are three or four times more than those in the winter season in Albania as a whole. Patterns differ from country to country, with coastal countries seeing more seasonality. Mountain resorts that provide winter activities often have two seasons, although both are fairly limited, and seasonality has a significant impact on sustainability.

Winter tourism in Albania is primarily reliant on the brief and frequently unpredictable winter season. Seasonality difficulties cause changes in visitor arrivals

as well as economic insecurity for enterprises that rely on the winter tourism sector. The 2019-2023 National Tourism Strategy emphasizes the importance of diversifying tourist options to attract visitors all year. Creating additional activities during the shoulder seasons, such as winter festivals, cultural events, and nature-based experiences, might help to offset seasonality and lengthen the duration of visitor visits.

Environmental Concerns

It is part of the government's overall development strategy to ensure sensible use of the country's natural assets, as articulated in official relevant documents such as the General National Territorial Plan for Albania, 2015-2030, the National Draft-Strategy for Tourism 2014-2020, and Law No. 107/2014 "On Planning and Territorial Development," all of which prioritize the balance of natural, economic, and human needs, as well as public and private interests.

Despite the legal provisions and references to sustainable tourism, as well as a small number of initiatives undertaken by the government to initiate a discussion on sustainable tourism development in Albania, the Albanian government and tourism sector have limited notions of sustainable tourism development (Nientied, Porfido & Ciro, 2018).

The rapid growth of the tourism industry has also led to concerns about the preservation of Albania's natural and cultural heritage. There have been instances of overdevelopment in sensitive areas, as well as damage to historical and archaeological sites due to the influx of tourists (Ilollari & Kociaj, 2023). On the other hand, the fragile alpine ecosystems in Albania's mountain regions are vulnerable to the environmental impacts of winter tourism. Ski resort development, increased traffic, and improper waste management pose threats to the biodiversity and natural beauty of the areas.

Given the environmental risk that irresponsible tourism poses, particularly in vulnerable alpine locations, it is critical to apply eco-friendly practices and follow sustainable tourism principles. Enforcing legislation to protect sensitive regions, encouraging good tourist behavior, and supporting eco-certified hotels can help to maintain the environment and preserve the country's natural resources.

Need for Sustainable Development

Sustainability has long ago made its emergence in the tourism discourse. While it was not before the mid-1990s, that the concept of sustainability increasingly dominated the tourism sector (Weaver, 2011). However, on a global scale the debate about sustainability in tourism seems to disregard workforce considerations. Baum and colleagues (2016) consider this failure to include human resources in the debate as counter-intuitive, given that social, cultural and community-focused considerations are prominent in some (but not all) analyses of this area. Education is vital in

guaranteeing sustainability in tourism sector because as Deale and Barber (2012) point out it helps to produce graduates who have the knowledge of sustainability concepts, and their applications, to meet the challenges of the workplace.

In Albania, although the supply of human resources in tourism services is abundant, it lacks quality. This might be due to a lack of awareness on the importance of the services sector in tourism, as well as lack of training, contemporary curricula for tourism university system schools and university, as well as entrepreneurs or managers to maintain high level of services, to customer satisfaction and increase the value of the service (Prifti & Zenelaj, 2013).

Discussion

In Albania, nature based tourism as a recreational activity in the form of organized walks outside the cities have been known since the beginning of the XX century (Skëndo, 2021). For many years, the country has been regarded as a mainly summer destination, indicating that the Albanian tourism product is highly correlated to “sea, sand and sun”. Approximately 68% of annual international arrivals happen between May and September (UNDP, 2022), and this for several reasons, such as better road infrastructure, reception and accommodation service, access and service in short time.

Despite the popularity of the country during the summer months, winter tourism in Albania holds immense potential for economic growth and cultural exchange. However, it faces several challenges that require careful attention and proactive measures. As all studies have noted, rural areas have many socio-economic problems, and few development alternatives, bypassing the tourism as a development opportunity, and more as a sustainable alternative., the tradition to these cities, the lack of knowledge for rural areas, etc. Winter tourism in Albania faces several challenges that must be addressed for the industry's sustainable growth. First, the limited infrastructure in the mountainous regions hinders accessibility and convenience for tourists, requiring investment in modern transportation networks and lodging facilities. Second, the heavy reliance on the short and unpredictable winter season creates seasonality issues, leading to fluctuations in tourist arrivals and economic instability. Additionally, the fragile alpine ecosystems are susceptible to the environmental impacts of ski resort development and increased traffic, necessitating eco-friendly practices and proper waste management to preserve the natural beauty of the areas. Addressing infrastructure limitations, diversifying tourism offerings, tackling environmental concerns, and fostering sustainable development are crucial steps towards building a resilient winter tourism industry in Albania. Collaborative efforts among stakeholders, guided by scientific research and evidence-based policies, will pave the way for a sustainable and thriving winter tourism sector in this enchanting Balkan destination.

Conclusion

Winter tourism in Albania, is undoubtedly a promising industry that has the potential to attract both local and international travelers. In order to take full advantage of this growing sector and to ensure continuity of this business, it is critical to balance economic growth with environmental conservation. By addressing the challenges identified in this review through collaborative efforts and evidence-based policies, Albania can foster a resilient and thriving winter tourism sector, ensuring a positive impact on the country's economy, environment, and cultural heritage.

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Scientific methods and applications to archaeological provenance studies of pottery from Podgoria, site of the Early Neolithic period in Albania

Erinda Ndreçka

University of Tirana, Faculty of History and Philology,
Department of Archaeology and Culture Heritage, Tirana, Albania

Abstract

In this paper, we will summarize the results obtained from the examinations carried out on the ceramic dough from the Podgoria settlement, an Early Neolithic site in the Albanian territory, and we will try to point out the similarities and differences between them. The study of the composition of the materials these clay products were made of as part of human activity will help us understand more about the technological abilities of the communities, their behavior, social organization and on the other hand the testing of different hypotheses regarding the origin of the objects and their dating in historical periods. In the ceramics of the entire area of the south-east of Albania, what is to be distinguished is the high quality of the ceramic work and the predominance of ceramics with fine and medium textures against those with coarse textures. In this study, by applying some archaeometric methods such as Energy Dispersive X-ray Fluorescence (EDXRF), micro-X-ray Fluorescence, X-Ray diffraction and Optical Microscopy (OM), we will aim to characterize the elemental composition and structure of ceramic samples selected from the site of Podgoria.

Keywords: Early Neolithic period, ceramics, archaeometric methods, elemental composition

Introduction

In the territory of Albania, the Neolithic settlement of Podgoria is located at the northeastern end of the Korça plain, at the foot of Mount Dry, near the village of the

same name. (Prendi&Bunguri, 2013, pp. 95-116). The first announcement on the discovery of the Podgoria culture, which would later turn out to be the most typical representative of the early Neolithic in the Korça basin and in the entire southeastern area of Albania, was given by P. Lera. In the informative article of 1971, on the new discoveries in the district of Korça, he drew attention to the discovery of the new Neolithic settlement of Podgoria, with numerous surface materials, referring to different chronological periods (Lera, P., 1971, pp. 191-194). Among the diverse categories of pottery, he mentions a type of painted pottery with white painting on a red background, which he rightly considers to be the earliest in that multi-layered settlement, which he originally dated as Late Neolithic period (Prendi, F., 1972, pp. 84-85) (Prendi, F., 1976, pp. 21-48)

The excavations of several campaigns undertaken in this archaeological site of special interest in the territory, have provided abundant materials and important data, which allow the interdisciplinary study of this Early Neolithic period of our country. These studies are related to the evidence of all the archaeological potential of the area, in various aspects of its historical and cultural development, including the problem of relative and absolute chronology as well as the periodization of the special cultures of this period. Trying to draw a parallel with the development of the region, it has been established that the site of Podgoria, as well as the other sites identified in the Albanian territory of the Neolithic period, have developed with significant regional changes influenced by the factors of internal economic and cultural development, but at the same time from the different geographical factors of the territory's positioning in the corridor of intersection of different cultures of the Neolithic development of the Balkans (Prendi&Bunguri, 2013, pp. 49-54).

In terms of geological development, the settlement of Podgorie is located in the quaternary formations of the Korca depression, which are filled with alluvial¹, proluvial² and swamp sediments which are usually placed on top of the old Pliocene formations.

Typological data

Table 1 summarize the results of the typological examination of thick-walled and thin-walled ceramics from the early Neolithic settlement of Podgoria studied in this article.

¹ alluvial =fluvial deposits

² proluvial = mountain slope stream deposits

	Samples analyzed from thick-walled vessels	Samples analyzed from thin-walled vessels
Selection of clay	Coarse sand particles	Fine sand + limestone particles
Color	Red, rarely with a gray tint	Monochrome red
Surface	Smooth	Carefully polished, shiny
Firing	High quality but not complete	High quality, but not complete
Decoration	With printing, with nail biting, with stripes, rarely with ink, with spraying	With painting
Ornamental instrument	Matte paint	White ink on red background
Decorative motifs	Lines, triangles with different orientations	Matte and glossy paint

Tab.1. Typological examination of thick-walled and thin-walled ceramics from Podgoria

The study of elemental composition

Tables 2 and 3 present the results of the elemental composition of the samples analyzed by the X-ray Fluorescence method, as well as of a clay sample collected in the settlement of Podgoria. The clay sample was collected by archaeologists and represents soil from an excavation layer. Tables 2 and 3 also includes the results of the analysis of light elements Na – Si, performed for some of the samples at Gaz University, Faculty of Fine Arts, Department of Conservation and Restoration of Cultural Heritage, Ankara, Turkey, by the EDXRF method .

The data of the content of major elements show a group of samples with similar composition (table 2 and table 3, figure 3). Thus, the content of K₂O varies between 1.5 - 2.8%, that of CaO between 2 - 5.4%, TiO₂ between 0.6 - 1% and Fe₂O₃ between 5.2 - 9.1%. The clay sample appears to have a content of major elements similar to

that of ceramics. The content of light elements in the analyzed samples varies as follows: MgO 0.75 – 5.7%, Al₂O₃ 13 – 16% and SiO₂ 50.3 – 55.9%. Comparing the composition of thin-walled and thick-walled ceramics indicate similar raw materials used for each group. Thus, both the average values of the groups and the variation of the values do not show any significant difference (figure 3). Even for the Podgoria samples we can say that the clays used are of the low calcium (non-calcareous) type, as the CaO content in the ceramic samples is generally lower than 5% with the exception of one sample with CaO – 5.1%.

The content of minor elements (table 4 and table 5) also supports the observations presented above.



Figure 1. Some of the ceramics selected for analysis from the Podgoria site

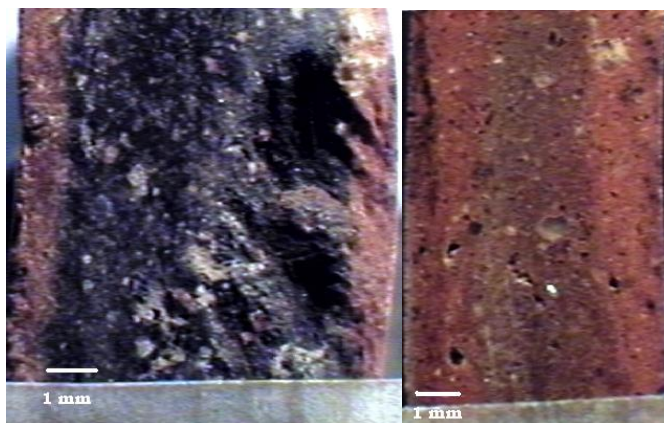


Figure 2. Cross-sectional view of some ceramics from Podgoria.

Table 2. The content of major elements (%) in the ceramics and clay of Podgoria

Sample Code	Na ₂ O	MgO	Al ₂ O ₃	SiO ₂	K ₂ O	CaO	TiO ₂	Fe ₂ O ₃
KPh 1243					2.54	3.35	0.94	6.89
KPh 1137					1.82	3.08	0.75	5.59
KPh 1127					2.82	3.06	0.91	7.39
KPh 1212					1.68	1.95	0.78	5.93
KPh 1230					2.06	2.81	0.79	6.30
KPh 2	0.09	1.39	15.15	50.35	2.54	4.49	0.88	6.90
KPh 717	0.85	1,15	13.57	54.31	1.50	3.82	0.81	6.27
KPh 7	0.48	0.75	14.59	54.43	1.84	2.86	0.73	5.20

*KP-Ceramic sample from Podgoria, h- thin-walled, the number represents the inventory code in the fund of the Institute of Archaeology, Academy of Albanological Studies, Tirana.

Analyzes of samples of thick-walled vessels

Table.3. The content of major elements (%) in the ceramics and clay of Podgoria

Sample Code	Na ₂ O	MgO	Al ₂ O ₃	SiO ₂	K ₂ O	CaO	TiO ₂	Fe ₂ O ₃
KPt 777					2.26	2.12	0.80	6.89
KPt 1130					2.24	2.95	0.83	8.26
KPt 270					1.69	2.35	0.78	6.23
KPt 602					2.33	2.67	0.80	6.54
KPt 606c					1.88	2.32	0.75	6.47
KPt 700					2.37	2.53	0.86	8.72
KPt 700a					2.43	2.35	0.91	9.13
KPt 1011					1.63	5.14	1.05	7.14

KPt 1089					1.82	2.38	0.78	7.56
KPt 1193					2.07	2.20	0.83	6.12
KPt 2695	0.05	2.10	15.87	55.93	2.74	2.60	0.86	8.57
KPt 813	0.05	5.73	13.03	52.12	2.07	4.44	0.65	7.43
KPt 583	0.04	0.86	15.98	55.90	1.97	2.38	0.76	6.90
Clay from Podgoria					2.74	2.74	0.92	7.07

*KP-Ceramic sample from Podgoria, t-thick-walled vessel, the number represents the inventory code in the fund of the Institute of Archaeology, Academy of Albanological Studies, Tirana.

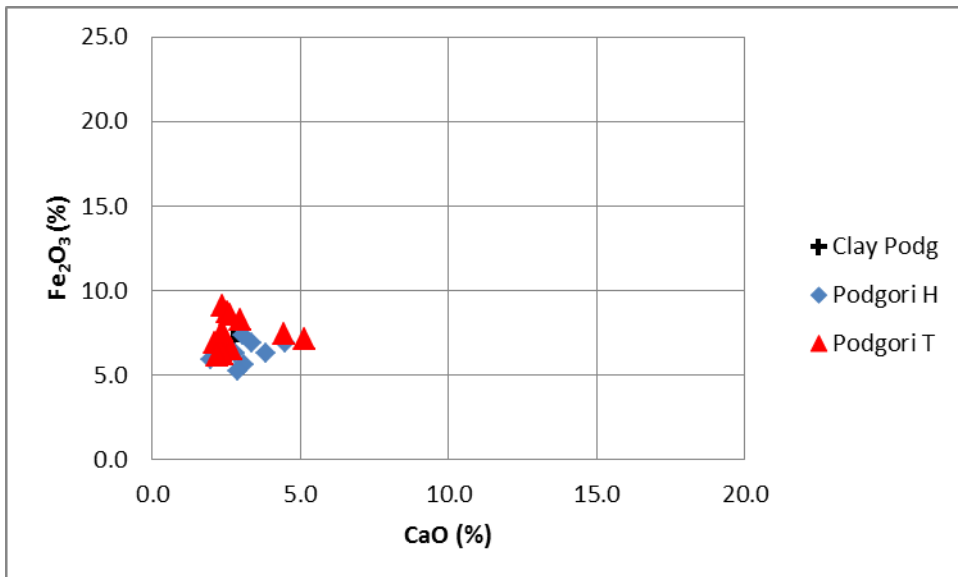


Figure 3. CaO-Fe₂O₃ graph for Podgoria clay and ceramics.

Table 4. The content of minor elements (mg/kg) in ceramics and clay from Podgoria.

Sample Code	V	Cr	Mn	Ni	Cu	Zn	Ga	Rb	Sr	Y	Zr	Pb	Th	Ba	La	Ce	Nd
KPh 1243	234	200	633	733	333	988	288	166	382	338	292	337	177	838	522	988	388
KPh 1137	203	155	360	447	666	644	199	106	163	324	226	327	177	617	221	555	220
KPh 1127	201	100	583	573	188	922	221	888	402	331	866	223	233	898	411	966	333
KPh 1212	125	219	418	744	244	855	199	118	155	311	222	255	122	697	277	700	224
KPh 1230	228	207	715	104	166	000	188	266	855	300	222	995	155	244	255	566	199
KPh 2	257	129	921	733	200	955	244	722	389	333	755	133	222	942	366	822	325
KPh 717	180	118	835	552	155	700	199	881	229	355	299	300	122	738	221	622	225
KPh 7	117	81	305	555	166	000	200	188	500	333	669	355	144	646	177	499	177

The content of minor elements (mg/kg) in samples from Podgoria in thick-walled containers.

Sample Code	V	Cr	Mn	Ni	Cu	Zn	Ga	Rb	Sr	Y	Zr	Pb	Th	Ba	La	Ce	Nd
KPt 777	144	168	2327	136	226	110	113	100	140	32	241	114	116	689	225	822	25
KPt 1130	198	495	1334	224	311	336	211	266	388	399	225	155	116	678	266	611	266
KPt 270	126	176	775	87	166	82	188	055	229	288	444	116	115	711	197	67	19
KPt 602	142	139	1009	117	229	116	119	399	233	42	177	43	144	544	251	61	26
KPt 606c	172	130	716	97	311	98	188	255	111	288	180	42	124	624	224	544	19
KPt 700	172	432	944	223	228	233	222	266	199	47	088	199	199	545	355	744	31
KPt 1011	209	431	772	622	201	817	176	076	175	258	189	166	100	500	200	599	25
KPt 1089	35	391	2441	117	370	299	166	233	244	344	366	100	115	627	277	722	24
KPt 1193	170	257	548	788	177	966	199	255	122	30	444	66	188	502	222	644	27
KPt 2695	86	441	1020	264	377	488	244	788	166	37	205	455	155	599	222	599	24

KPt 813	1 2 6	4 8 5	60 9	4 7	2 8	1 2 7	1 1 4	1 2 7	1 1 3	2 2 3	1 2 9	5	1 4	4 3 9	1 4	4 8	1 9
KPt 583	1 5 8	1 0 7	66 5	6 9	2 2	9 6	2 3	2 0	1 5 0	3 0	9 7	2 8	1 2	7 1 3	2 0	5 7	2 0
Clay from Podg oria	3 2 1	6 5 6	13 15	2 3 1	2 2 8	1 2 2	9 3	1 6 3	8 4 7	4 1 1	9 4 3	4 1 7	1 1	4 5 2	4 4	8 5	3 5

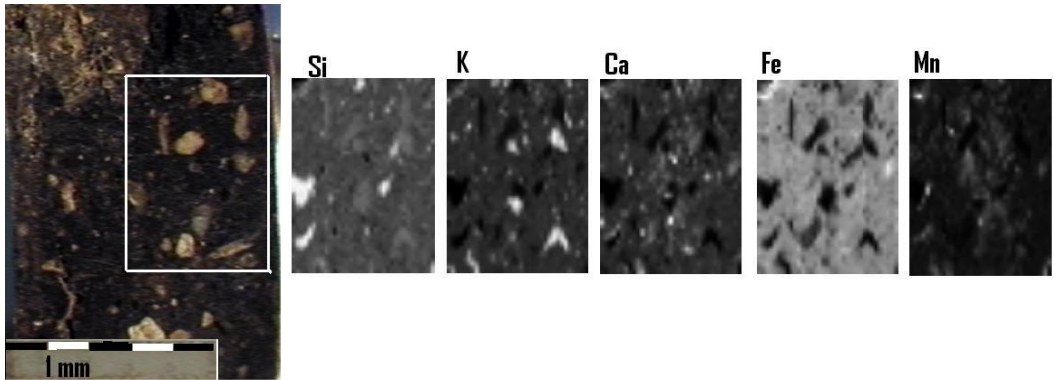
Mineralogical characterization

Figure 4 shows some analyzed samples from the Podgoria site and for each of them, the distribution of the major elements in the visible inclusions is given in the form of a map.

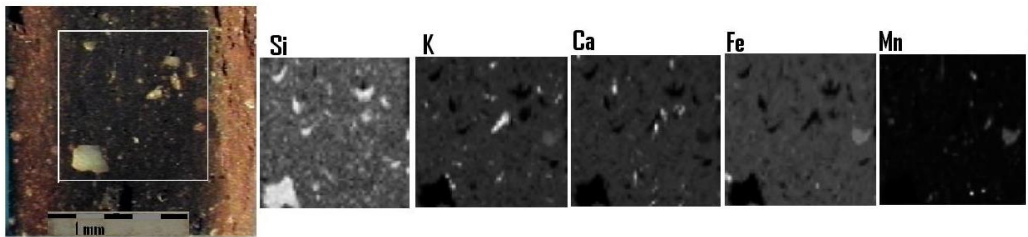
From the analysis, we notice that among the detected inclusions, those with a high Silicon (Si) content predominate, which are most likely quartz particles. The inclusions rich in potassium (K), calcium (Ca) and iron (Fe) are observed in smaller quantities.

The expected result of low amounts of calcium oxide (CaO) from the analysis of the elemental composition is also confirmed in these analyses, where it is again observed that the number of particles rich in Ca is relatively low, although we also have cases of exception in a number of limited samples where these particles have a larger surface area.

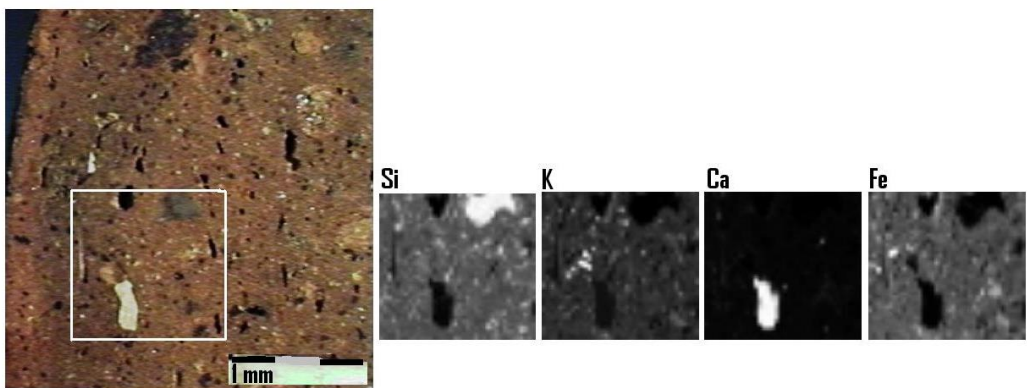
In the samples taken in the study, we noticed that the inclusions which can be interpreted as recycled ceramics are fewer in number and smaller in size. Under these conditions, we assume that particles with larger dimensions may have been added to the clay dough in the form of tempera.



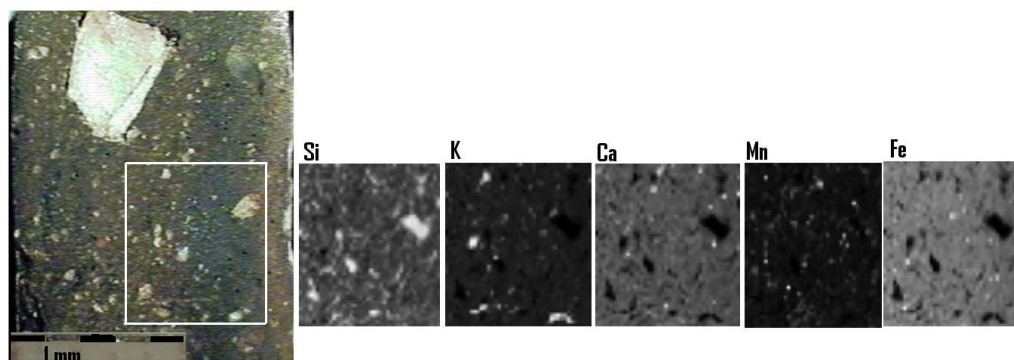
Sample from Podgoria, thin-walled vessel, No: 717



Sample from Podgoria, thick-walled vessel, No: 583



Sample from Podgoria, thick-walled vessel, No: 1089



Sample from Podgoria, thick-walled vessel, No: 1011

Figure 4. Presentation of μ -XRF results in the analysis of ceramic dough inclusions in some samples analyzed from the Podgoria site. The distribution of major elements in the form of chemical maps in the detected inclusions.

Petrographic analysis

For petrographic study, from the group of ceramics from the Podgoris site, we selected three of them. A sample with the inventory name KPh2 is part of the group of samples from thin-walled vessels, while the other two samples, respectively, with inventory designations KPt 813 and KPt 2695, are part of the group of samples from thick-walled vessels.

The analysis of the sections of the samples was carried out using an optical microscope (Leitz Laborlux 11 Pol S) in the Laboratory of the Department of Earth Sciences, Faculty of Geology and Mining, Polytechnic University of Tirana.

Sample KPh 2. From the petrographic analysis of the sample, it can be seen that the matrix has good sorting, is anisotropic and appears with a non-homogeneous reddish beige color. The mineralogical composition is represented by plagioclase, in some cases sericitized, microcline, quartz, mostly white mica, as well as opaque minerals represented by magnetite or hematite. Lithoclasts are represented by quartz-pl schists. The material has a poor degree of vitrification. It is worth emphasizing the recrystallization of lime, filling the voids and channels with recrystallization calcitic material.

Inclusions: Represented by recycled ceramics and hematitic pelitic concretions.

Gaps: They are evident in elliptical, closed spherical, cavity, open linear channels.

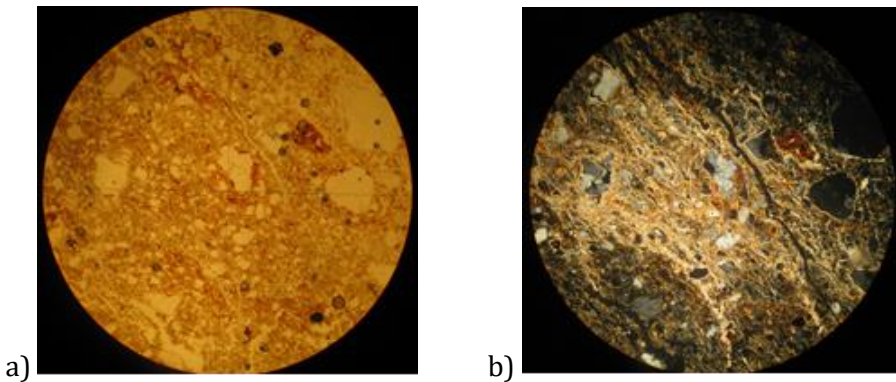


Figure 5. Analysis of the KPt 2 sample with a polarized light microscope (x10)

a) (parallel polars=PPL, and b) crossed polars (=+PL).

Sample KPt 813. From the petrographic analysis of the sample, it can be seen that the matrix is homogeneous and appears with a slightly red beige color, it has a very good sorting, it is anisotropic and fine. The mineralogical composition is represented by plagioclase, quartz, white and black mica, as well as opaque minerals represented by magnetite or hematite. The material has a poor degree of vitrification. It is noticed that the voids and channels are filled with gel from the recrystallization process.

Inclusions: They are represented by recycled ceramics, bioinclusions (vegetation) and hematitic pelitic concretions.

Gaps: They are evident in elliptical, closed spherical, cavity forms.

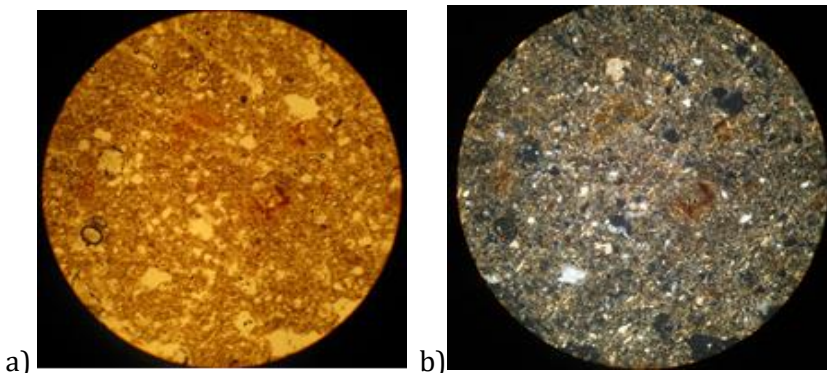


Figure 6. Analysis of sample KPt 813 with polarized light microscope (x10)

a) (parallel polars=PPL, and b) crossed polars (=+PL).

Sample KPt 2695. From the petrographic analysis of the sample, we notice that it is very similar to the above-mentioned sample KPt 813. The matrix is homogeneous, has a slightly reddish beige color, appears anisotropic, has a very good sorting and is very fine. The mineralogical composition is represented by plagioclase, quartz, white and black mica, as well as opaque minerals represented by magnetite or hematite. The material has a poor degree of vitrification. Recrystallization of lime is observed, filling voids and channels with recrystallization calcitic material.

Inclusions: Represented by recycled ceramics, bioinclusions (vegetation) and pelitic hematitic concretions.

Gaps: They are evident in elliptical, closed spherical, cavity forms.

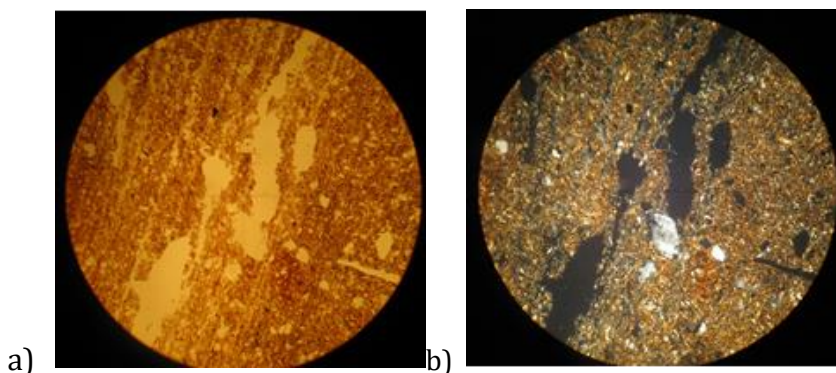


Figure 7. Analysis of sample KPt 2695 with a polarized light microscope (x10)

a) (parallel polars=PPL, and b) crossed polars (=+PL).

X-ray Diffractometry Analyses

For X-ray diffraction analysis, four samples were selected from the group of samples from the Podgoria site, respectively KPh 700, KPh 1230, KPh 1243 from the group of thin-walled vessels and KPt 1011 from the group of thick-walled vessels. A clay sample taken from the Podgoria site (P-Clay) was also analyzed with this technique.

Through X-ray diffraction analysis, the mineral phases in the ceramic samples analyzed have been identified. The main phases identified are quartz (SiO_2) and albite ($\text{NaAlSi}_3\text{O}_8$), while the calcite phase (CaCO_3) was also identified in the clay sample.

These results also agree with the results obtained from the petrographic study as well as those with μ -XRF, which have identified minerals in which these phases are

contained. The fact that some minerals with small amounts have not been identified by XRD, which were detected by petrographic analysis, we think is due to the low sensitivity of the XRD technique.

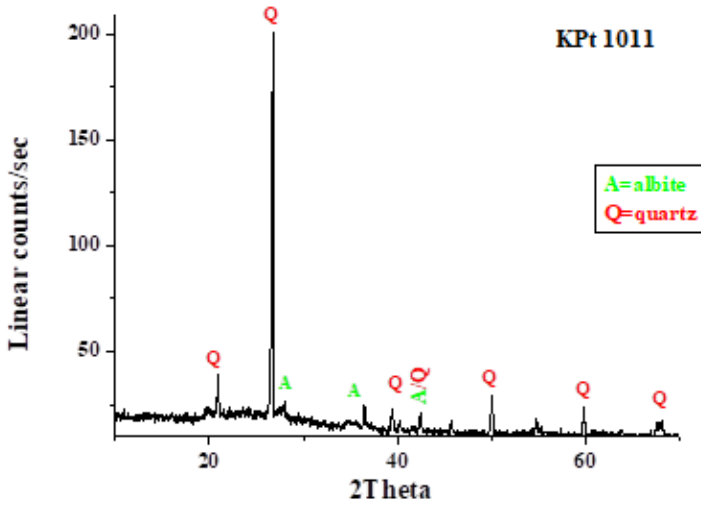


Figure 8. XRD spectrum of sample KPt 1011 from Podgoria

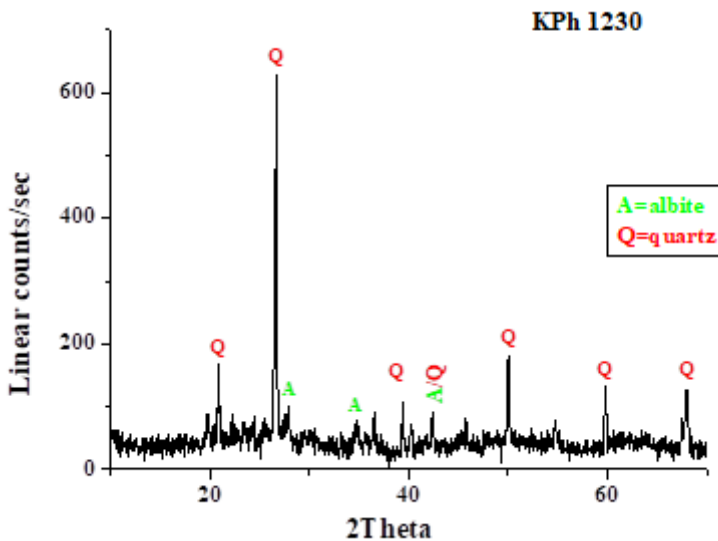


Figure 9. XRD spectrum of sample KPh 1230 from Podgoria

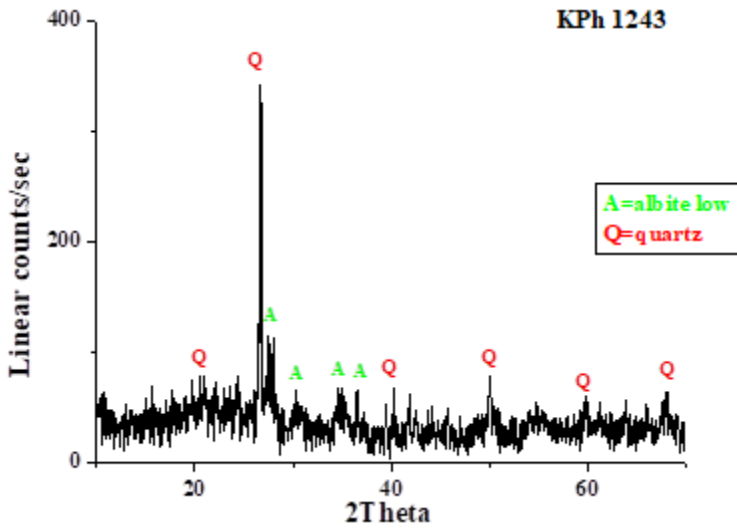


Figure 10. XRD spectrum of sample KPh 1243 from Podgoria

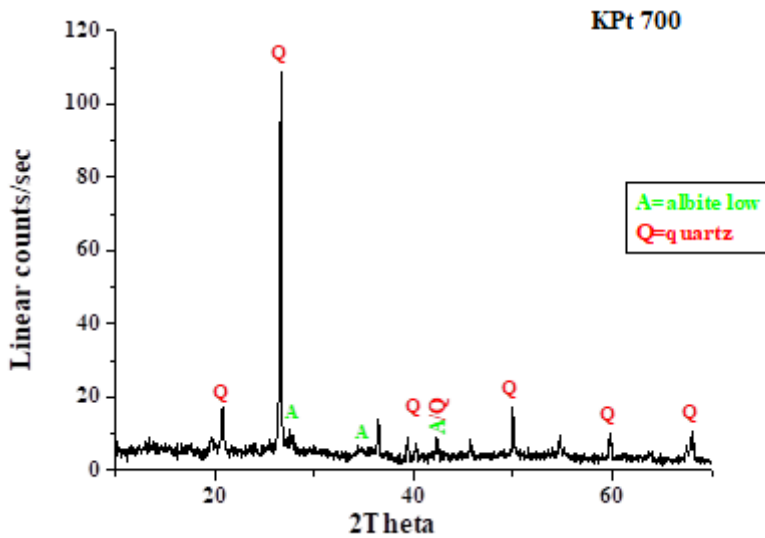


Figure 11. XRD spectrum of sample KPt 700 from Podgoria

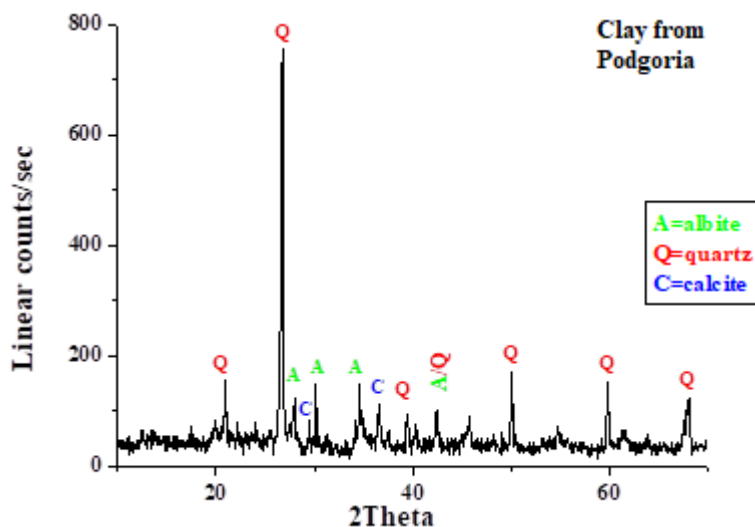


Figure 12. XRD spectrum of the clay sample from Podgoria

Conclusions

- Evidence shows that most ceramics from Podgoria were prepared from low calcium (non-calcareous) clay.
- The data prove that the clays used for ceramics from all Early Neolithic settlements in Albania belong to the category with high SiO₂ and Al₂O₃.
- Minerals rich in Si and Ca together with recycled ceramics have been used as tempers.
- Bioinclusions have been identified in some of the samples from each settlement.
- Ceramics are fired at low temperatures (700-800°C), with non-prolonged firing followed by rapid cooling.
- The results support the idea of local pottery production at the Podgoria site, although they do not exclude the possibility of exchanges between them.

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The European Ombudsman. Frontex and Fundamental Rights

Blerina Muskaj

Universiteti Aleksander Moisiu Durrës, Tirana Albania

Abstract

The European Union system is characterized by the presence of the European Ombudsman (also known as the Ombudsman), a special figure, strengthened over time, which translates the will to prepare an ever wider protection of the rights recognized by European Union law, not only for European citizens, but also for residents of a member state, whether natural or legal persons.

On 1 October 2013 Emily O'Reilly¹ took up the first position at the European Ombudsman and continued the path started by her predecessors in order to support the EU institutions to become more effective, transparent and accountable.² This statement of purpose it is based on the binding legal value obtained from the Charter of Fundamental Rights with the entry into force of the Treaty of Lisbon. As far as it is important for our purposes, the extension of the right to good administration in the activities of the European institutions is being strengthened.

Key words: European Parliament, Unione europea, European Ombudsman, clause of solidarity, Charter of Fundamental Rights, Frontex and fundamental rights.

Introduction

In art. 41 Card ³the right to refer cases of maladministration to European Ombudsman, in the action of institutions, bodies and offices of the Union. The Code of

¹ He was Ireland's Ombudsman and Irish National Information Commissioner (2003-2013), award-winning journalist political editor and television author.

² <https://www.ombudsman.europa.eu/it/emily-oreilly/biography/it>

³ The text says: "The right to good administration." 1. Everyone has the right to have issues that concern them dealt with in an impartial and fair manner and within a reasonable time by the institutions, bodies, offices and agencies of the Union. 2. This right includes in particular: a) the right of every person to be heard before an individual measure that causes harm is taken against him; b) the right of everyone to have access to the file that concerns him, subject to the

Good Administrative Conduct specifies that "we speak of maladministration when an institution does not perform a proper action, acts irregularly or acts illegally".¹ Some examples may be: administrative irregularities, injustice, discrimination, abuse of power, lack or refusal of information and unjustified delay. Therefore, the violation of EU law is not necessary, but the opposition to the criteria of transparency, efficiency, justice and fairness in public relations is sufficient. For this reason, it is believed that the complaint to the European Ombudsman² is configured as a "means of protection of the person being administered", since the complaint may concern general profiles of the action of the European administration or widespread interests.³

Another feature is that the Ombudsman can conduct investigations on his own initiative. Thanks to this ability to act *motu proprio*, it can be concluded that the duty of the Ombudsman is not to provide the complainant with remedial or compensatory protection, but to exercise real control over all divisions of the European Union (with the exception of the Court of Justice in the functions of its judicial)⁴. The activity of the

legitimate interests of confidentiality and professional and commercial secrecy; c) the obligation of the administration to justify its decisions. 3. Everyone has the right to have the Union remedy any damage caused by its institutions or by its employees in the performance of their duties, in accordance with the general principles common to the laws of the Member States. 4. Any person can address the institutions of the Union in one of the languages of the Treaties and must receive an answer in the same language".

¹ The idea of providing an ombudsman at Community level dates back to a question dated 14 December 1974 by European Parliamentarian Lord O'Hagan, in which he asked the Commission whether a citizen of a Member State who has a complaint to make in relation to EEC activities. Unfortunately, in that case the Commission responded that it does not recognize this need as the citizen already had the instrument of a petition in Parliament or a complaint to the Commission itself (*L. COMINELLI, European Ombudsman, Union Ombudsman, 2005, p. 90*).

² The European Ombudsman was officially envisaged on November 1, 1993, with the entry into force of the Maastricht Treaty, with the establishment of the European Union and of Union citizenship (among the provisions for the protection of citizens, only the introduction of the European Ombudsman is an absolute innovation: *E. VINCI, European Union, citizen, ombudsman. Brief reflections on a new European citizen institution, in International Review of Human Rights, 1992, p. 884 ff*).

³ Pertanto, la funzione di tutela individuale offerta dal Garante si aggiunge a quella giurisdizionale, quale controllo stragiudiziale sull'attività di altre istituzioni, assumendo così un ampio profilo *sensu politico* (così *M. CONDINANZI, A. LANG, B. NASCIMBENE, Cittadinanza e Unione e libera circolazione delle persone, 2006, p.66*)

⁴ See *C. SANNA, Art 228, in F. POCAR, M.C. BARUFFI, Short Commentary on the Treaties of the European Union, 2014, p. 228*, according to which "the right to submit a complaint for maladministration to the People's Advocate fits into the broader context of access to justice, constituting one of the forms of non-judicial protection that individuals can benefit from".

Ombudsman gives security to this Union of ours, as it strengthens the sense of belonging to an increasingly complete organization, curbing the state of dissatisfaction with the European system, which sometimes remains in some of us. An implicit dependence of the Ombudsman on the European Parliament can be established since it is the EP itself that elects him and approves the Statute¹, in the exercise of supervisory activity. The Treaty of Lisbon has underlined the elective nature of the appointment of the Ombudsman, previously appointed only by the European Parliament².

This change is aimed at strengthening the independence and autonomy³ that should characterize the figure of the People's Advocate so that his activity is as effective as possible and close to the citizens. However, this consideration should not lead us to believe that this system cannot be perfected: precisely because, over time, the Ombudsman has proven to be a leading figure within the Union in ensuring the protection of citizens, it is necessary to continue looking for improvements.

An investigation by the Ombudsman: Frontex and fundamental rights

As part of an investigative procedure activated by the Ombudsman on his own initiative⁴, the respect of fundamental rights by the European Agency for the Management of International Cooperation at the External Borders of the Member States of the European Union, known as Frontex⁵, was verified. This Agency is

Further, for the important contribution that the Ombudsman's activity can make in the field of human rights protection, see L.C. REIF, *Ombudsman, Good Governance and the International Human Rights System*, 2004.

¹ See the articles 24, paragraph 3 and 228 TFEU; 204-206 reg. internal PE cit.

² The Court of Justice ruled out that "it is for the Assembly to influence the activity of the Ombudsman" and specified that «the powers available to the European Parliament vis-à-vis the Ombudsman cannot be configured as powers of judicial review" (Court of Justice, 23 March 2004, C-234/02 P, *Lamberts v. European Ombudsman and Parliament*).

³ Full independence is «the only guarantee made explicit in the TFEU (art. 228, par. 3), »: *P. SOAVE, Art. 228, in C. CURTI GIALDINO (directed by), European Union Operational Code, 2012, p. 1672*.

⁴ This is case OI/5/2012/BEH-MHZ, opened by the previous Ombudsman P. Nikiforos Diamandouros, but closed by present.

⁵ Regulation (EC) no. 2007/2004 of the Council of 26 October 2004, which establishes a European Agency for the management

responsible for coordinating joint operations with Member States at the external borders and assisting States in returning third-country nationals residing illegally in the territory of the Union.¹

In the exercise of its activities, Frontex is bound by the Charter of Fundamental Rights of the European Union² In particular, that fini dell'inchiesta, assume rilievo precipuo il principio di non respingimento come diritto fondamentale dei migranti sancito espressamente dall'art. 2, par. 1 bis del Regolamento, ma, più in generale, intrinsecamente correlato al divieto assoluto di tortura³. In substance, the migrant is non possono essere in alcun caso respinti in uno Stato in cui rischiano di subire atti di tortura o trattamenti inumani o degradanti.

In this regard, we recall the judgment of the European Court of Human Rights in the case of *Hirsi and others v. Italy* ⁴. The applicants, citizens of the Horn of Africa,

of operational cooperation at the external borders of the Member States of the European *Union* (*OJEC L 349 of 25*

November 2004, p. 1), as last amended by Regulation (EU) no. 1168/2011 of the European Parliament and of

Council of 25 October 2011 (*OJEU L 304 of 22 November 2011, p. 1*) - hereinafter "the Regulation"

¹ For an analysis, see *B. NASCIMBENE, A. DI PASCALE, The exceptional influx of people from North Africa and the European Union*

² This is confirmed by the art. 1, par. 2, of the Regulation: «The Agency carries out its functions in full compliance with the relevant Union legislation, including the Charter of Fundamental Rights of the European Union ("Charter of Fundamental Rights"), the relevant international law, including the Convention Relating to the Status of Refugees signed at Geneva on 28 July 1951 ("Geneva Convention"), the obligations relating to access to international protection,

³ Art. 4 Charter of Fundamental Rights of the European Union: "No one shall be subjected to torture or to inhuman or degrading treatment or punishment". While it should be noted that this prohibition is part of customary law, it should be emphasized that it is enshrined in various conventions, including the 1951 Geneva Convention on the Status of Refugees, expressly referred to in the Regulation, the European Convention on Human Rights (art 3), the United Nations Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, the European Convention for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment.

⁴ ECtHR, Grand Chamber, 23 February 2012, *Hirsi Jamaa and others v. Italy*, application n. 27765/09. This punishment certainly did not come suddenly. In fact, there have been many warnings and warnings about Italy. Among them, we note the 2010 report of the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (*Report to the Italian government on the visit to Italy carried out by the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT) from 27 to 31 July 2009*), which condemned the so-called "operations of maritime interception and detention" of migrants, aimed at their mass return to Algeria and Libya, in implementation of the Memoranda of Understanding between Italy and these two countries, without performed no examination of

complained that they had been rejected on the high seas by the Italian navy and returned to Libya, from where they had left, without being given the opportunity to seek asylum. According to the Court, there was a violation of the article. 3 of the ECHR, as migrants risked suffering inhumane treatment or acts of torture in that state or being returned to their countries of origin, where the risk was even greater.

Next: the investigation

The Regulation has equipped the Frontex Agency with a system aimed at ensuring respect for fundamental rights in the exercise of its functions¹. Just such a system has been subjected

to be examined by the Ombudsman, with primary attention to its practical functioning. On the one hand, during the investigation procedure, a dialogue with various external organizations ²and with Frontex itself ³ made it possible to bring out the existence and effective operation of

. a monitoring mechanism with preventive purposes. This consists, among others,⁴ of a Fundamental Rights Strategy⁵ and a corresponding Operational Plan, Codes of Conduct⁶, and the possibility for the Executive Director to suspend or terminate joint operations and pilot projects in case of persistent or serious violations of fundamental rights. A mechanism for "reporting" any incident is also foreseen. An important contribution comes from the interaction between the Human Rights Officer and the

asylum applications.

¹ According to authoritative doctrine, the purpose of the news was to make up for the numerous "critical issues that emerged from the early years of Frontex's operations": A. *LIGUORI, N. RICCIUTI, Frontex and respect for human rights in joint operations at the external borders of the European Union, in Human rights and international law, 2012, p. 540*, to which reference should be made for references to institutional and non-governmental sources that had reported these shortcomings.

² The European Ombudsman had invited interested parties to comment on the matter. The participation of numerous NGOs, such as Amnesty International and Human Rights Watch, should be noted.

³ In concrete terms, the procedure consisted of a debate that was always open to comments from the interested parties. In particular, considering the delicate area covered by the investigation, the Agency for Fundamental Rights of the European Union (FRA) was also involved, who sent a report on the case. This agency was established by Regulation (EC) n. 168/2007 of the Council of 15 February 2007 (GUCE L 53 of 22 February 2007, pp. 1-14).

⁴ For an analysis of the instruments mentioned below, please refer to the Ombudsman's final decision: Decision of the European Ombudsman closing own-initiative inquiry OI/5/2012/BEH-MHZ.

⁵ Article 26 bis of the Regulation.

⁶ Article 2 bis of the Regulation.

Consultative Forum. Finally, personnel involved in the Agency's missions should receive specific training, including legal training, in terms of rights protection.

On the other hand, however, the Ombudsman, in the Special Report sent to Parliament¹, points out the lack of a system that can be activated ex post, complementary to the first, which allows migrants to propose individual complaints for violations actually suffered during the guided operations. Contrary to what the Agency itself maintains, the task of creating such a mechanism cannot rest exclusively on the Member States. Indeed, there are several areas in which Frontex has an effective responsibility, even when the latter has exercised a mere coordination activity.

There is therefore an articulation between responsibilities. In this regard, it is certainly not reasonable to place the burden of knowing when an injury is attributable to the Member State rather than to the Agency itself, on migrants, who often find themselves in a particularly difficult situation. In the light of the considerations, for an effective protection of the fundamental rights of migrants, Frontex should provide, when the injury falls within its sphere of control, direct protection with respect to single individual complaints. In any event, it should at least help data subjects to obtain the possibility of an effective remedy before the competent national authorities

According to the Ombudsman, this role could be assigned to the Fundamental Rights Manager, an office already envisaged by the founding Regulation and which art. 26 bis par. 329 falls within the scope of operation of the monitoring mechanism, which was mentioned above. In reality, from the literal wording of this provision it does not emerge in detail what the functions of this office are: the provision, in fact, limits itself to requiring that it has the necessary competence and that its independence is ensured.

On this specific aspect, Frontex did not provide an adequate response to the Ombudsman's recommendations, denying any responsibility: for this reason, the

¹ In summary, according to the Ombudsman, there would be at least three hypotheses in which Frontex should be at the forefront of knowing individual complaints: violations of human rights committed by its staff, in relation to which it should deal with the substance of the complaint; violations committed by different others, but identifiable by migrants as «Frontex», for which at least adequate support should be provided to identify the (national) authority competent authority; violations attributable to the coordination of joint operations

Ombudsman himself sent a Special Report to the Parliament indicating his concerns and the need to provide for a better protection of fundamental rights¹

Ensuring that EU institutions respect fundamental rights is an integral part of the Ombudsman's mandate. It is precisely on this statement that Emily O'Reilly, in her mandate, opened another investigation on the activities of Frontex on October 20, 2014². In this new case, the assessment she intends to make concerns the respect of the basic rights of migrants who subject to forced return measures by an EU member state to their country of origin. The decision to continue monitoring the Agency's activity is necessary, given the public importance of return operations in the context of immigration policy.³

Conclusions

It is believed that the Frontex agency is the daughter of a "security" policy, aimed more at guaranteeing the security of the European legal space than at regulating in a unitary way a reality that particularly affects the Mediterranean countries⁴. In the light of the Lisbon Treaty, the European Union would have the regulatory tools for create a common policy in this delicate sector⁵, but the States still oppose resistance linked to national interests.

"Clause of solidarity", according to the article. 80 TFEU⁶. Based on this standard, in fact, even immigration policies, apart from those related to border controls and asylum, should be inspired "by the principle of solidarity and fair sharing of

¹ At the end of this Special Report, the Ombudsman reiterates his recommendation to the Frontex Agency: «*The Ombudsman therefore makes the following recommendation to Frontex: Frontex should establish a mechanism for dealing with complaints about infringements of fundamental rights in all Frontex-labelled joint operations. The mechanism should receive complaints from persons who claim to be individually affected, or who complain in the public interest. This role could be entrusted to the FRO, who should be resourced accordingly. The European Parliament could consider adopting a resolution accordingly*»

² Case OI/9/2014/MHZ, on which see the press release

³ The Ombudsman sent a letter initiating the inquiry to the Executive Director of Frontex, where, in addition to justifying the initiative, he raised, among others, a number of questions concerning compliance with the Code of Conduct, which includes the mechanism of individual complaints, highlighted in the previous investigation.

⁴ See A. LIGUORI, N. RICCIUTI, *Frontex and respect for human rights cit.*, p. 539f

⁵ For an overall picture, see the summary sheet on the European Parliament website.

⁶ The need to strengthen European solidarity in the management of migratory flows was reaffirmed in the Stockholm Program of the European Council, which outlined the Union's priorities for the creation of the area of freedom, security and justice for the period 2010 -2014 (OJEU C 115 of 4 May 2010).

responsibilities of states, also for the financial plan"¹ An application of this principle can be found in Frontex's activity to help problematic countries for immigration, especially Italy, with operations Hermes and Aeneas for border control and migratory flows².

Requests for more substantial assistance and support have been made by state governments in recent years in the face of the large migratory flow. Moreover, for the above operations, such as the "Triton" operation, which is part of the activities in the central Mediterranean area, with the task of strengthening border surveillance and supporting humanitarian efforts³. It is precisely these Frontex interventions, for which the participation of other EU member states is required, which make the aforementioned principle of solidarity a reality. Therefore, "Triton" can be a further step towards the creation of the European asylum municipality system⁴

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What is it to be a bad teacher? Beliefs of future secondary school teachers in their initial training in Spain

Juan García Rubio

Faculty of Philosophy and Educational Sciences Department of Didactics
and School Organization Universidad de Valencia, Spain

Abstract

The teacher is the fundamental element in the teaching-learning process, and is especially relevant for students who present more difficulties in the classroom. Initial teacher training is essential for the achievement of a more competent teacher who is capable of successfully facing the beginning of the teaching profession, and in this, the previous beliefs or conceptions that students have about what a bad teacher is are key. The prior ideas with which future teachers come to university classrooms determine their first teaching identity and the beginning of their professional practice. In this paper, the research focused on the beliefs of prospective secondary school teachers about what they consider to be a bad teacher. A qualitative, biographical-descriptive methodology was used, in which the students' accounts were the starting point for establishing what characterizes a bad teacher. The results show that the future secondary school teachers place the bad relationship between the teacher and the students and their negative attitude in the exercise of their profession as the key factors for being a bad teacher, above any other, including aspects related to the way in which the curriculum is taught.

Keywords: beliefs, secondary education, initial teacher education, teacher identity, students with learning difficulties.

CDA of News Headlines on Covid-19 Pandemic in The New York Times

Natasa Stojan

Faculty of Humanities and Social Sciences, University of Split, Croatia

Abstract

The Covid-19 pandemic has affected the whole world and had a huge impact on social and economic development of many countries. Various aspects of the world health crisis have been studied by different researchers in various fields of science. Our study analyses newspaper headlines published in *The New York Times* from January of 2020 till December of 2021. The aim of the paper is to analyse headlines that deal with various aspects of the Covid-19 pandemic. The methodological procedure applied in this qualitative-quantitative study comprises two levels of analysis, linguistic and intertextual, based on the three-dimensional model of analysis, developed by Norman Fairclough, combined with Teun van Dijk's concept of microstructures and macrostructures. CDA is applied in the analysis since it offers the most appropriate theoretical and methodological framework for the analysis of language which cannot be separated from the social, political and economic contexts as well as power relations that are channelled through language within those contexts. Linguistic analysis comprises different levels: lexical, thematic and stylistic. Furthermore, the role of direct and indirect speech is also investigated within the framework of intertextuality, whereby reporting mode and sources are analyzed. Linguistic analysis of newspaper discourse shows that health topics are intertwined with political ones, which reflects the fact that situational context is imbued with politics. We can agree with Sacco and Muddiman (2015), who claim that *The New York Times* mostly uses traditional headlines that introduce the main topic of the article, and they are generally short, concise and unambiguous, however, the results of the analysis show that there are also examples of figurative language, which contributes to the linguistic diversity of newspaper headlines.

Keywords: Covid-19 pandemic, The New York Times, critical discourse analysis, news headlines.

Global Ecological Crisis and Climate Change Inequities, Disadvantages, and Vulnerabilities; Global North Geopolitical Dominance and Critical Inclusion of Global South

Faruk Hadžić

Independent scholar, Independent researcher,
Bosnia and Herzegovina

Extended Abstract

Events and research data have clarified that no country can escape the global ecological crisis and climate change impacts. The Global North, the world's most affluent and privileged country, is responsible for around half of all emissions since the Industrial Revolution. The least developed countries, "Global South," have contributed far less to global warming. It also implies that least developed countries have had a less equal share in the direct benefits of fossil fuel use, including energy consumption. The data indicates that the poorest countries of the world, while registering the lowest industrial pollution levels, are most susceptible to the damage produced by climate change. Moreover, the initial inequities and inequalities experienced by countries of the Global South put them at a disadvantage, where they are particularly vulnerable to climate change impacts. Consequently, climate change widens existing global inequalities, undermining efforts for poverty reduction. A report from the World Bank estimates that the ecological crisis might drive up to 135 million people into poverty by 2030. Globally and nationally, climate change further deepens within-country inequalities by adversely affecting the poorest communities, including Indigenous and People of Colour communities, women, and children. These most vulnerable groups face the effects of global warming daily. At the same time, vulnerable groups are often the ones who are actively involved in the protection and conservation of natural habitats, as in the case of indigenous environmental defenders. GEopolitically, policies-wise- there is an urgent and critical need for more active inclusion of Global South actors. Rather than suffering the most from climate change, communities at the fore should be at the center of the world's fight against global warming and should be given way more space to raise their voices. Thus, to reduce global inequities, inequalities, and

vulnerabilities, Global South actors and their voices need to be actively included in the decision-making of global action and partnerships, especially on climate-related issues. As with mitigation, crucial is action- research, satisfactory geopolitical approaches, and focus on the technological, social, psychological, and cultural aspects. The aim should be to get satisfactory climate change programs, commissions, governments, and various international expertise institutions dealing with the adjustment. During the approaching "climate change transition," in a socio-political sense, it is essential that everyone is more actively involved in the policy-making process. The key is to ensure an appropriate geopolitical and financial focus, even budget resources through the Green Climate Fund (CCF), a Global South/North honest association, and a transformation of the Global North policies during the transition - aiming to assist the Global South and prevent the risk of violating international law and territorial and social rules. Thus, especially regarding Global South - regions and countries that will be most affected - areas with fragile general security and critical human insecurity.

Keywords: Climate change, Environmental security, Climate Change policies, Global North, Global North, Global South, Inequities, Vulnerabilities, Inclusion