

## RESEARCH FOR BANKSY MURAL ‘JUDOKI’ IN BORODYANKA

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### Abstract

*This paper concerns the issue of researching one of Banksy's murals, which was created in the city of Borodyanka, Ukraine. This mural, like the artist's other works, carries a deeper message. This time it is a message related to the war in Ukraine. At the same time, the authors note that the mural is a work of art and an important 'witness' for the local community to the tragic events in Borodyanka. In the current situation, where as a result of the war, the building substance is destroyed to a greater or lesser extent, it is important to consider how to protect, preserve, and restore works of street art, especially works as valuable as the Banksy mural under analysis.*

**Keywords:** Murals; Banksy; Ukraine; Borodyanka; Exposition; Conservation;  
Strengthening of masonry

### Introduction

The tragic events of the war in Ukraine have even brought on topic those conservation lines that did not develop in Ukraine during peacetime. Here, the authors have in particular in mind the preservation of iconic street art works with political overtones. These works, which represent an important social message, have become an important element of the cultural landscape of the city, associated with its identity and uniqueness, and, in the case of the war in Ukraine, a 'witness' to the tragic events.

The subject of the presented research is related to Banksy's work entitled 'Judoki', which the artist made in 2022, on one of the buildings located in the village of Borodyanka. In Ukraine, until then, the practice of restoring and preserving works of street art from the point of view of their artistic value did not exist. Despite the fact that street art and muralism are quite developed in Ukraine, this is the first time that the authors of this study have addressed the issue of conservation and preservation of Banksy's murals made in Ukraine. The phenomenon of his works, in this case, is dedicated not only to the skill of execution but above all to three external factors: the topicality of the subject (the war in Ukraine, which shook the whole world), the context (the encoded image that is perceived in the environment), and the PR personality of the mysterious artist.

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Banksy is the artistic pseudonym of a British street art artist, known worldwide. Banksy is known to have been born in Bristol, UK, and many of his works can be found in this city. His wall paintings are basically a combination of graffiti and stencil painting. His work appears on the streets of London and in other cities, including Bristol, London, Los Angeles, Bethlehem (Figs 1, 2), Southampton, and the aforementioned Borodyanka. The most famous are: "Maid", "Rats"; "Pulp Fiction"; "Flower Bomber"; "Queen Bowie"; "Kissing Coopers"; "Girl with a Balloon"; "Peace dove" or "Girl Frisking Soldier". In his art, Banksy conveys messages to the viewer. These sometimes have a humorous dimension, but sometimes also force the viewer to reflect more deeply when they relate to social and political issues such as armed conflicts, unrest in the Middle East, troubles in Northern Ireland, or the war in Ukraine [1].



**Fig. 1.** Banksy mural 'A Soldier checking a donkey's ID' rendered on a section of the separation wall in Bethlehem.



**Fig. 2.** Banksy's mural 'Armored Dove of Peace' in Bethlehem.

The complexity and ambiguity of the issue were determined by analyzing relevant scientific sources:

- 1) the analysis of the street art phenomenon and its evaluation was done in the articles by *M. Dyomin and O. Ivashko* [2, 3] and *O. Ivashko* [4];

- 2) the meaning of the term "art" from the point of view of classical theories and conservation departments has been analysed in the works of *P. Gryglevski et al.* [5], *M. Orlenko and Y. Ivashko* [6], *G. Stabinski* [7], *P. Sztabinska-Kalowska* [8], *M. Weitz* [9];
- 3) street-art wall paintings in the context of modernization and revitalization of areas were studied by *M. Dyomin et al.* [10, 11], *A. Dmytrenko et al.* [12], *M. Orlenko and O. Ivashko* [13] and *K. Stefański* [14];
- 4) the problem of preservation of the historic environment was presented in the articles of *P. Spiridon et al.* [15] and *L. Pujia* [16],
- 5) specific technologies for the conservation of stone and concrete surfaces (which are arthritic for Borodyanka) described in articles by *L. Luvidi et al.* [17], *M. Furtak et al.* [18],
- 6) the possibilities of monitoring and strengthening structures, including masonry, in which valuable paintings are located are presented in the articles by *I. Drygala et al.* [19], *L. Bednarz et al.* [20], *L. Bednarz et al.* [21] and *D. Bajno et al.* [22].

The task of the research was to characterise a specific mural, namely the "Judoki" mural in the town of Borodyanka, and the results of its research as a basis for conclusions regarding the possibility of its preservation.

## **Materials and methods**

Next to the Banksy's mural studied by the authors in Borodyanka, Kyiv region, other works by Banksy, especially those created in areas of military and civil conflicts, were studied to determine the peculiarities of the creative manner and technique of creating murals.

The formulated goal and tasks of the research determined the use of the following scientific methods for the study of the actual mural in Borodyanka: the analytical method, the field survey method and the graph-analytical method. In addition, in order to correctly determine the meaning of this work in the cultural and historical context of modern Ukraine, its artistic value, the methods of historical analysis, cultural analysis and art analysis were used.

The applied materials and methods made it possible to formulate proposals for handling the mural, which would allow, on the one hand, to ensure its physical preservation, and on the other hand, to preserve its artistic, cultural and social value.

## **Results and Discussion**

### ***Survey of technical condition of wall with mural***

The difficulty in preserving Banksy's paintings is that the artist himself did not expect them to exist for a long time, and for him the creative act that took place is more important.

From the point of view of artistic complexity and skill, all Banksy murals are fairly simple to produce, mostly monochrome stencil paintings with 'mtn94' spray paint on an unprepared surface.

In settlements in the Kiev region, these graffiti were applied to the outer surfaces of walls damaged or destroyed by the Russian Federation's military aggression against Ukraine. Each graffiti carries a semantic load precisely on the specific construction of the destroyed building.

One of the worst affected territorial communities in the Kiev region is Borodyanka. Here alone, approximately 1,000 buildings and structures were damaged during the 38 days of occupation. It should be noted that most of these buildings are in a poor state of repair and require major renovation, reconstruction, or demolition. At the same time, the graffiti itself is exposed to the constant influence of external factors such as temperature changes, humidity changes, precipitation, dynamic effects of assembly and dismantling work, vandalism, gassing, etc.

When it is possible to modernise a building, the existing mural on it is also subject to conservation and is thus preserved [23, 24]. However, there are situations where a building is in such a poor state of repair that it has to be demolished.

In this case, it is proposed to leave the fragment of the wall with the mural as a 'witness', in this case a witness to the war and Russia's attack on Ukraine. However, to make this possible, the preserved fragment of the wall on which the mural is located should be reinforced and conserved.

Returning to the site of the mural, it should be noted that it was the subject of a visual inspection in April 2022. At that time, the damaged and dilapidated buildings were inspected, including a visual inspection of the brick outbuilding of the "Pinocchio" nursery school, which is located at 427B Central Street [23, 24]. Banksy painted on one of its walls a child winning a duel with a man in November. Both the child and the man are dressed in Eastern martial arts costumes. The man looks like the President of the Russian Federation, V. Putin (Fig. 3). The artist chose the location for the mural with this storyline, on the wall of a kindergarten, not by chance. The clothes were also in good condition, as the Russian president trained in judo.



**Fig. 3.** Mural 'Judoki' in Borodyanka.

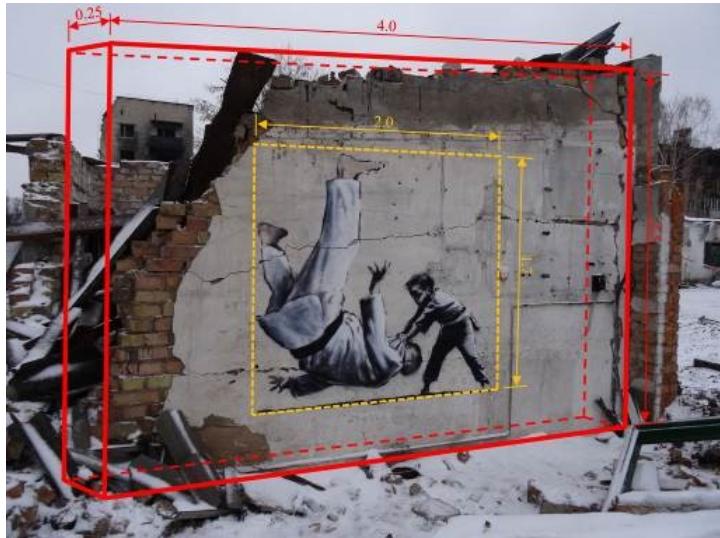
Due to the poor state of repair of the buildings, it was decided to demolish the boiler house adjacent to the outbuilding first. As a result, the wall on which Banksy painted the mural in question in November 2022 was exposed.

Based on the results of a visual inspection carried out in April, it was determined that the outbuilding had been severely damaged as a result of a blast wave from an aerial bomb that had been fired on a neighbouring residential building. The roofing including the roof was completely destroyed, the walls were partially damaged and those standing had vertical and horizontal cracks with an opening width of up to 8 mm, locally also with a peeling plaster layer.

Another visual inspection was carried out in December 2022, this time focusing primarily on the wall on which the mural had been made. It was found to be a 250mm thick hollow block, in cement-sand mortar, with a 14mm thick layer of cement-sand plaster and then painted, probably with water-emulsion paint (Fig. 4). Overall dimensions of the wall: length 4.0 m, height 2.5 m. Graffiti dimensions: width 2.0 m, height 1.7 m.

The left part of the wall is damaged along an oblique line with a larger area of damage upward. Also in the same part, a plaster layer has fallen. There are about five horizontal cracks

on the wall, which also cut through the mural, and one vertical crack on the side. Two horizontal through cracks with an opening width of up to 7mm outside and three hairline cracks with an opening width of up to 0.2mm (Fig. 5).



**Fig. 4.** Dimensions of the Banksy mural 'Judoki' in Borodyanka.



**Fig. 5.** Research of the Banksy mural 'Judoki' in Borodyanka.

There are also localized areas with lost plaster and areas where the plaster has taken the form of 'blisters', that is, it has flaked off. Under the influence of external factors, the exposed bricks of the masonry become delaminated and fall off. After wet snow and a temperature drop below 0°C, a layer of ice forms on the surface of the plaster and painting, negatively affecting the durability of the building structure and graffiti. There are also remnants of electrical appliances and networks on the surface of the masonry.

Using non-destructive methods, the mural strength of the bricks was determined using a Schmidt hammer (MSch 75), which is 6-8MPa, and the strength of the plaster layer, which is 4 -5MPa (Fig. 6).



**Fig. 6.** Research of the Banksy mural 'Judoki' in Borodyanka.

### ***The Building Fabric of the settlement***

In connection with conducting research on the wall on which Banksy produced the mural, the authors decided to carry out a visual inspection and subsequent analysis of the building substance in the immediate vicinity of the mural.

The results of the examination of the various buildings in the vicinity of the mural and directly of the building on which the graffiti were made are briefly described below.

The "Pinocchio" kindergarten is located at 427B Central Street. The kindergarten building consists of two over-ground floors and one underground storey. The structural scheme is a frame, and the vertical load bearing elements are reinforced concrete columns. Damaged as a result of the shock wave caused by the impact of the aerial bombs on houses 429 and 429A on Central Street. The building has minor damage to the load bearing and enclosed structures, the interior fittings, the windows, and the doors. The technical condition of the building does not allow it to be used.

The residential building located at 429A Central Street has 5 floors above ground and a basement. The structural scheme is wall mounted; the vertical loadbearing elements are brick. Destroyed by airfield bombing, half of the end entrance has been destroyed, and force fissures have formed in the walls that have stood, observing the damage to the retaining walls and surrounding buildings. The technical condition of the building is an emergency.

The residential building located at 429 Central Street consists of three segments with 5 to 8 upper floors and one basement below the 5-story segments. The structural scheme is wall-mounted, and the vertical load bearing elements are made of brick. The building was damaged as a result of an airplane bomb and most of a section was destroyed. Other sections have also suffered significant damage, including fire damage to the building structures, damage to the ceiling and surrounding structures, cracks in the walls, etc. The technical condition of the building is emergency.

The residential building at 340 Central Street is a two-story building. The structural scheme is wall, and the and vertical load bearing walls are made of brick. It was damaged as a

result of a blast wave, which originated from the impact of an aerial bomb on the house at 429 Central Street. As a result, part of the exterior and internal walls and covers were destroyed and the rest of the building structure was severely damaged. The technical condition of the building is an emergency.

The residential building located at 338 Central Street is a two-story building. The structural scheme is a wall; the vertical load bearing walls are masonry. The building was damaged as a result of the shock wave caused by the impact of an aerial bomb on the house at 429 Central Street. As a result, there was considerable damage to the external and internal structures of the building: cracks in the walls, damage to the partitions and internal fittings, damage to the shell, etc. The technical condition of the building is also an emergency.

The residential building located at 427A Central Street consists of five upper floors and one underground storey. The structural scheme is a wall, and the vertical load bearing walls are made of brick. The building was damaged as a result of a shell impact from ground-based military equipment (tank / armoured personnel carrier), which caused a fire with ignition of the interior of the premises and destruction of the building structure. As a result of the aforementioned extra-design impacts, the fifth to first floor ceilings in the building collapsed along with part of the front wall. The technical condition of the building is emergency.

The above indicates that the condition of the buildings is very poor and that the entire building complex must be rebuilt. This reconstruction can be carried out by replicating the preexisting, war-damaged urban fabric or can involve completely new design measures dictated by current urban trends. This is acceptable here because the buildings in question do not have a historic character. In the opinion of the authors, the decision in this regard should be taken with the participation of the local community on a participatory basis. They have the right, especially in the context of the tragic events that occurred in Borodyanka, to express their feelings, needs, and dreams about the reconstruction of their neighbourhood and their homes.

#### ***Mural as an artwork***

Art is always about feelings, symbolism, communication, and their specific way of expression. It can bring joy, pleasure, and experience, but also sadness and determination, encourage faith, and character, or express a message expressively. Art is an irreplaceable part of human culture, without which human society would remain empty. This is also why we collect, protect, and present selected art pieces in our memory institutions. Therefore, they serve as a part of the database of our knowledge and understanding of culture.

A significant place in knowledge and understanding is occupied by communication, the process by which we acquire and assimilate various information; on the contrary, we express thoughts and share our emotions and opinions [25, 26]. Visual arts are also one of the types of communication, so it is the communicator. Fine art communicates with the target primarily visually. Therefore, when presenting works, we use nonverbal communication [27, 28], a system of signs and symbols [29]. Symbols and signs combine meaning semantic and sign semiotic approaches [30].

If we want to understand the meaning and value of Banksy's works in Ukraine, we must inevitably touch on the evaluation of their symbolism and the way of communication. It aims to strengthen the self-confidence of the Ukrainian nation and belief in victory, hope for justice, determination to defend oneself, endure and win, and not to give up. In the case of these works, communication is especially enhanced by the location (positioning) of the individual drawings. The choice of ruins and destroyed buildings was not accidental, but intentional and targeted as part of the artist's expression and expression of his feelings. We do not perceive the drawing in isolation but as part of the original environment in which it was created [31-34].

#### ***The Problem of Preserving the Banksi Mural***

The problem of preserving the undeniably valuable Banksi mural in Borodyanka is complex. The authors of the article decided that, in their opinion, the mural on the fragment of wall that remained from the destroyed pre-school boiler house should remain in the place where

the artist created it. Both the wall fragment and the mural should be preserved as a 'witness' to the tragic wartime incidents in Borodyanka and to human injustice. It should be noted that Banksi's message also brings the Ukrainians hope of victory, and thus hope of a return to their former peaceful lives.

To preserve the mural wall in a section of the boiler room, its construction and material structure should be protected. Reinforcement, i.e. the restoration of structural systems to their functional capacity, the improvement of their static-strength properties and their resistance to destructive processes through, for example: consolidation of the structure of the structural material, can be carried out using a number of different methods. In addition to traditional methods, strengthening with fibre-based composite materials, such as carbon fibre mesh bonded to masonry structures using mineral-based mortars (FRCM), is becoming increasingly popular. In this case, when dealing with the remains of a structure that is supposed to be a kind of permanent ruin, the focus is on strengthening the structure of the structural material - brick masonry and the plaster on which the mural is located. To reinforce the structure of the brick wall, low-pressure injections with mineral agents seem to be the most useful. Plaster reinforcement can be carried out with (grading from the weakest agents to the strongest) acrylic or polymer mixtures through silicates, silicate-polymer mixtures, and water-based resins. Of course, the use of each of these agents carries different advantages and disadvantages.

As for the mural, the authors propose not to restore it, but only to protect it from destruction. It should, as written above, be a memory of the events in Borodyanka, a 'witness' to them, so preserving its originality, that is, damage, is, in the authors' opinion, advisable.

As part of the proposed restoration works, the wall structure on the rear (inner) side should be subjected to structural strengthening, and on the front (outer) side, where the mural is located, it should be subjected to cleaning, strengthening of the plaster structure, hydrophobisation and protection with chemicals preventing algae growth. The purpose of hydrophobisation is to prevent water from penetrating deep into the structure of the material. Solvent-based water-repellent impregnating agents for absorbent mineral substrates are used for this purpose. The advantages of this type of agent are resistance to harsh atmospheric and chemical agents, reduced susceptibility to soiling, and facilitation of self-cleaning of the material under the influence of precipitation, hindering the formation of algae, fungi, and lichen, which are one of the most frequent causes of corrosion of building materials.

## Conclusions

The preservation and protection of the Banksi mural, which the artist created in Ukraine, in the village of Borodyanka in November 2022, is, in the opinion of the authors, absolutely necessary. On the one hand, this is supported by the figure of the artist himself, who is unique and known worldwide for his street art works, which always carry a message. However, the value of the mural as a symbol of the unjust war in Ukraine, but also of the hope that Banksy was trying to convey to the local people, should be taken into account.

As a result of the destruction of the area where the mural was created, it is proposed that the space be re-revitalized and the buildings be rebuilt according to an urban-architectural project to be carried out for the area, with the participation of the local community. This project must be preceded by an inventory of the existing area and the function of the individual buildings.

As for the mural itself, in the authors' opinion, it should be preserved *in situ*, and the wall on which it exists should be protected structurally according to the solutions proposed above. On the other hand, as a 'witness' to the tragic events in Borodyanka, one should remain unchanged, only to be preserved and protected from the weather and chemical agents.

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