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TOURISM AS A WAY OF RATIONAL USE OF THE DNIPRO RIVER ISLANDS WITHIN THE CITY OF KYIV

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Abstract: The article is devoted to the assessment of the tourist potential of the Dnipro River islands within the city of Kyiv. This islands take the central part of Kyiv, though are separated from it by water. The aim of the article is to identify the actual situation on the islands and to propose the scheme of the the improved tourist use of one of the islands. The quantitve and the qualitative characteristics of the islands are taken from the open sources. For the assessment of the tourist potential of the region the author determined the CORINE Land Cover categories on the islanads and counted their areas, defined the most natural islands, determined the accessibility for the vacationers, assessed the diversity of natural landscapes. Also author proposed the scheme of future tourist use of the Dolobetskyj island. Therefore, the Dnipro River islands have a great tourist potential, but they are not used fully. The rational use of these islands can improve the recreation on the Dnipro River banks in Kyiv.

Key words: tourism, Dnipro River islands, the city of Kyiv, land use assessment, rational use scheme, Dolobetskyj island

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INTRODUCTION

River islands have a special place in the space: they are both part of landscape and riverscape. Therefore, their study is interesting for scientists from different countries. In particular, Indian scientists (Sarma, 2014; Goswami et al., 2020) are studying the hazardous processes on the world's largest river island – Majuli, situated on the Ganges River. The Russian scientists (Prokazov, 2011; Rulev et al., 2017 a; Rulev et al., 2017 b; Ryazanov et al., 2019; Sudakov et al., 2015; Shapovalova, 2009; Shinkarenko et al., 2019) are interested in the landscapes of Sarpinskij Island on the Volga River. The Italian scientists (Gurnell et al., 2018;Gurnell and Bertoldi, 2020; Gurnell et al., 2001; Picco et al., 2012; Picco et al., 2014; Picco et al., 2015; Moretto et al., 2014) study the formation of the islands of the mountain rivers Tagliamente, Piave and Brenta. The Chinese scientists (Ding et al., 2020; Shi et al., 2017, 2018; Sun et al., 2018, 2020) investigate the Yangtze River Islands. One of the areas of research of river islands is their use in economic activities.

Improper use can lead to the unwantedconsequences. Studying the different ways of economic use of the river islands we can see that one of the most appropriate ways to use them is tourism. River islands are usually aesthetically appealing landscape objects. However, the peculiarities of their location in the river floodplain does not allow the construction of massive buildings. In addition, in many countries, the access to water must be free, that also affects the use of islands - in particular, the culture of beaches. Tourism allows you to get economic benefits from the use of river islands, without radically changing the natural conditions. The islands of the Dnipro River are the part of the territory of Kyiv. The Dnipro River, along which they are located, divides Kyiv into the western and eastern parts, and the islands, respectively, stretch along with the river from north to south. The islands of the Dnipro River were the object of the scientific research (Bondar et al., 2018; Klimenko, 1999; Kucher, 2016; Honchar, 2017; Parnikoza and Cukanova, 2005; Parnikoza, 2012; Pozharska, 2020; Tsukanova, 2005; Tomchenko et al., 2017).

However, there are studies entirely devoted to the nature and fauna of these islands, but there wer also the recreational studies (Dmytruk and Ponomarenko, 2010; Zinovieva, 2016). The islands of the Dnipro River within the city of Kyiv are involved in the city's economy. They are the part of the transport network - through them pass the bridge connections of the eastern and western parts of the city. Some of the islands are the part of the nature reserve fund of Ukraine. The most accessible are used for the recreational purposes: they are located tourist and sports facilities, such as clubs, beach resorts. Unfortunately, the recreational use of these islands is not equable. The more accessible parts of the islands are used too intensive and the less accessible regions are not used. Lack of regular and even use leads to the unauthorized capture of the territory with blocking access of other vacationers, the emergence of marginals and littering of the territory. Therefore, the purpose of this article is to assess the recreational potential of the Dnipro River Islands in Kyiv and to propose a scheme for the rational use of one of the islands as a tourist attraction.

MATERIALS AND METHODS

Bing Aerial and Google Maps cartographic materials were used to write the article. The area of the islands was calculated by QGIS instruments. Data on the islands are taken from theopen sources. The research methodology is

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author's and consists of the area of different landscape calculation. Firstly, the landscapes of the islands were divided according to the land use (the CORINE Land Cover inventory was used). The area and the percentage of the each landscape were counted (using the QGIS tools). Then the landscapes were divided on the natural and the engaged in economic activities. The area and the percentage of the each type of areas were counted.

Afterwards, the accessibility for vacationers was counted. To each type of the accessibility the points were assigned, and then these points were counted. Fourthly, the landscape diversity of the each island was defined (the number of landscape types was counted). Finally, the suggestions for tourist use of the Dolobetskyj Island were made.

Table 1. The Dnipro River islands within the city of Kyiv, Ukraine

№	Name	Area, km^2	Location
1	Obolonskyj	0.1477	50°30'30.4"N 30°31'14.2"E
2	Pivnichnyj	0.185302	50°30'16.8"N 30°31'47.5"E
3	Muromets	4.690847	50°30'25.0"N 30°32'32.1"E
4	Chortoryj	0.618153	50°30'21.4"N 30°33'28.0"E
5	Mizhmostnyj	0.188409	50°29'20.8"N 30°33'12.1"E
6	Trukhaniv	5.381059	50°28'00.9"N 30°32'48.1"E
7	Dolobetskyj	1.384264	50°27'33.3"N 30°34'16.9"E
8	Venetian	1.855935	50°26'25.4"N 30°34'45.5"E
9	Malyj Hidropark	0.052515	50°26'36.4"N 30°35'02.8"E
10	Malyj	0.143292	50°25'05.7"N 30°35'10.9"E
11	Velykyj Pivdennyj	0.378248	50°24'20.5"N 30°35'24.7"E
12	Halernyj	0.64836	50°22'22.2"N 30°33'33.7"E
13	Zhukiv	4.691702	50°21'14.2"N 30°34'11.0"E
14	Topolevyj	0.100475	50°21'21.2"N 30°35'00.8"E
15	Vodnykiv	0.736387	50°20'47.3"N 30°35'36.1"E
16	Kozachyj	1.46024	50°19'23.9"N 30°36'08.1"E
17	Promizhnyj	0.439777	50°18'56.3"N 30°36'44.9"E
18	Olgyn	1.603475	50°18'26.2"N 30°37'30.3"E

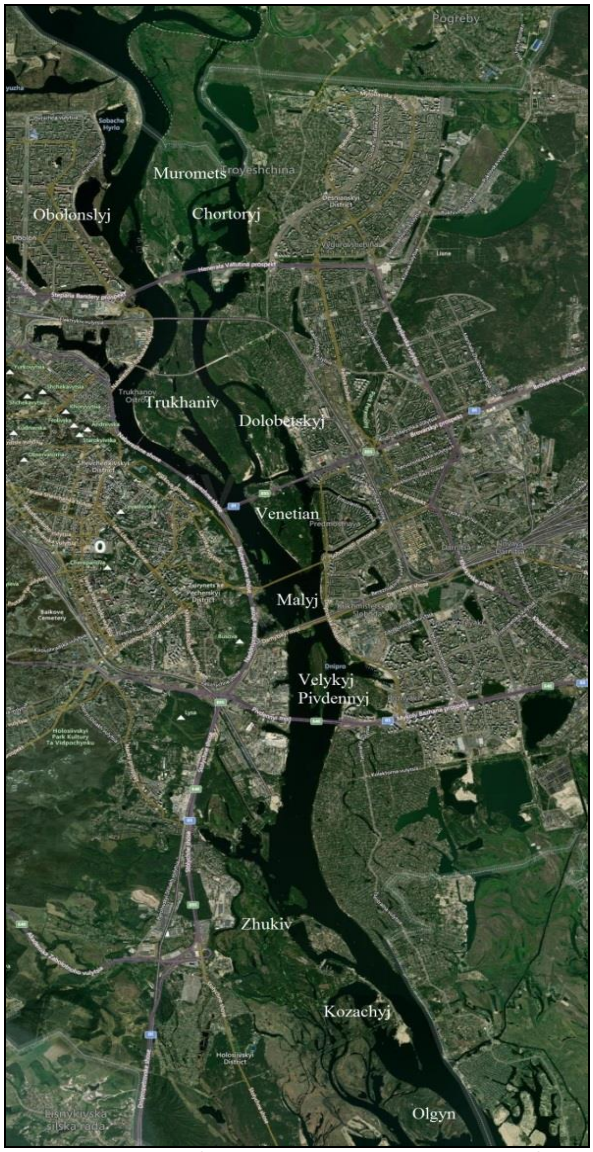

Figure 1. The map of the Dnipro River islands in the city of Kyiv islands (Source: Google Earth images with the author's additions)

To the northwest is the Obolonskyj island (No 1 in the Table 1), which is separated from the residential area of Obolon by Obolon Bay. It is an uninhabited island covered with forest, shrubs and meadow vegetation. Now it is accessible by boat, but the construction of bridges on the Obolon quay has begun. Further to the east is the Pivnichnyj (No 2 in the Table 1) island, which also has no bridge connection with the coast. It is also overgrown mainly with forest vegetation. This island is illegally employed by local entrepreneurs, who organize recreation with water sports.

In the north-central part is the large island of Muromets (No 3 in the Table 1), through which in the southern part stretches the Northern Bridge. It is the eponymous park, which occupies the southern part of the island. It also houses the yacht clubs and sports facilities. The northern part of the island, overgrown with shrubs and forests, is a place of unorganized recreation. To the west of the Muromets island is the island of Chortoryj (No 4 in the Table 1), which has the shape of a trident. It can be reached by boat. The vast majority of the island is covered by forest, but some of it is occupied by unknown houses. To the south of it there is the Mizhmostnyj island (No 5 in the Table 1), also covered by forests.

Further south, the island of Muromets flows smoothly into the island of Trukhaniv (No 6 in the Table 1). These two islands were once separated by a strait, but now they are one whole. Trukhaniv island is the largest of the Dnipro River islands in Kyiv. It occupies a central position in the Dnipro river valley in Kyiv. In the north it also leads to the North Bridge, in the south-western part it is connected by a pedestrian bridge with Podil. It can also be crossed by boat from the island of Venetian. Trukhaniv island is also mostly overgrown with forest, in the western and southwestern part there are

many sports facilities. The construction of the Podilsko-Voskresensky Bridge with the metro line, which will connect Podil on the right bank of the Dnipro and the Troieschyna residential area on the left bank, is underway. It is possible to build a subway stop on the island of Trukhaniv, which will facilitate the access to the island. The Petrovsky railway bridge is also in transit through the island of Trukhaniv. The location of some private estates on Trukhaniv island is also questionable, but work has begun to verify the ownership of such buildings. To the west of the island of Trukhaniv is the island of Dolobetskyj (No 7 in the Table 1). It can be reached via a bridge to the island of Venetian. This island is occupied by coniferous and deciduous forests and sparse forests. The southern part of the island, which is part of the Hydropark Park, with beaches, sports and entertainment facilities, has been developed. The northern part of the island is poorly accessible and partially occupied by "wild" tourists, who quite aggressively guard the occupied territory.

To the south of the islands of Trukhaniv and Dolobetskyj is the Venetian island (No 8 in the Table 1), which is also called the Hydropark due to its location on the territory of the park with the same name. A branch of the metro with a stop on the island passes through the northern part of the island. This island is developed mainly in the central part with entertainment facilities, as well as in the north and west - with beaches. Paton Bridge also passes through the island in the southern part. Earlier it was possible to descend from it to the island of Venetian, but now this descent is dismantled. In the center of the island is a lake, which is little known to vacationers. A small island east of theVenetian is called the Malyj Hidropark (No 9 in the Table 1). It is occupied by forest, it can be reached only by boat. To the south of the Venetian is the Malyj island (No 10 in the Table 1), which actually consists of three small islands. Thisse island is forested and only accessible by boat. Also this island is a place of spontaneous rest. To the south of the Malij islandl is the Velykyj Pivdennyj island (No 11 in the Table 1), covered with forest and meadows. Less popular with vacationers due to a certain distance from the main transport arteries. It is available by boat. Further to the southwest is the Halernyj island (No 12 in the Table 1), which is separated from the right bank by a system of lakes. There are lakes of fisheries and places for fishing. It is located near the places of public transport. Further south is one of the largest islands – Zhukiv (No 13 in the Table 1). It is separated from the right bank by the river Konik. This island is covered with forests and meadows, it is reached by a highway, but it is difficult to reach by public transport. The island is partly built up by unknown private houses that are in the area without permits.

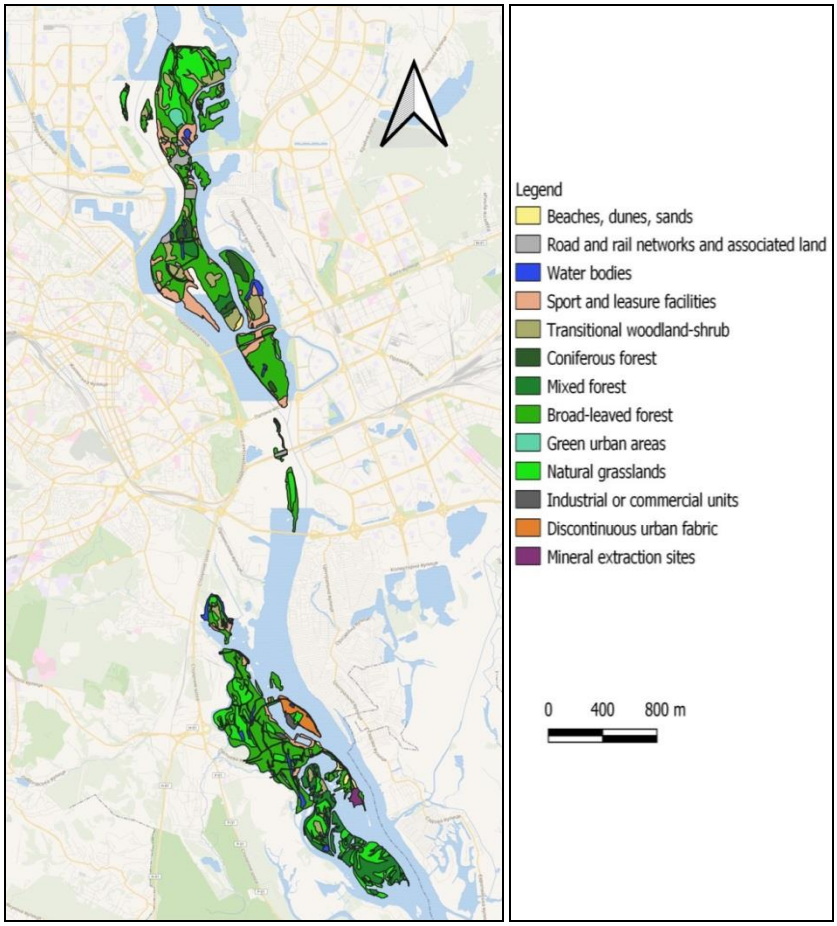

Figure 2. The map of the Dnipro River islands' land use
(according to the CORINE Land Cover inventory) (source: author)

The long elongated spit of this island is used as a sand quarry. To the west of the island of Zhukiv is the Vodnykiv island (No 15 in the Table 1), which leads to the highway. The island is completely occupied by private country estates. To the north of the Vodnykiv island is a small Topolevyj island (No 14 in the Table 1) - uninhabited and occupied by forest. It can be reached only by boat, so there is no stationary recreation. Further south of the island of Zhukiv are 3 islands: Kozachyj (No 16 in the Table 1), Promizhnyj (No 17 in the Table 1) and Olgyn (No 18 in the Table 1). All three islands are accessible only by boat, have no stationary recreation and are covered with mixed forest. The islands south of these three islands are no longer part of the city of Kyiv, so they will not be considered in this article.

Table 2. The environmental problems of the DniproRiver islands in the city of Kyiv (source: the author's own calculations)

Unauthorized construction	Some areas are chaotically and without the permission of the city authorities fenced and used to create recreation centers, sports facilities for private development
Contamination with the household waste	There are natural dumps on the territory of the islands
Lack of a clear land use system	Some of the islands are the objects of the nature reserve fund ("The Dnipro River islands"), which is not marked on the cadastral map. Their use does not always meet the requirements for nature reserves. The old scheme of creating parks on the islands is partly destroyed and overgrown, partly obsolete. New facilities are created point by point and do not cover the entire territory.
Transport accessibility	Not all the islands are connected by bridges, not all islands have roads

RESULTS AND DISCUSSION

1. Thus, on the territory of the city of Kiev there is a significant number of islands, different in area and characteristics. In order to properly assess their tourism potential, it is necessary to determine the current state of use of these areas. For these purposes, the CORINE Land Cover inventory is used, which divides the types of land use into certain categories. Since there is no CORINE map for the territory of Ukraine, so the further map was made by author's. Therefore, to identify the use of these islands territory, a map of the current use of this territory was made.

Table 3. The land use of the Dnipro River islands within the city of Kyiv (according to the CORINE classification) (source: the author's own calculations)

Name		Obolonskyj	Pivnichnyj	Muromets	Chortoryj	Mizhmostnyj	Trukhaniv	Dolobetskyj	Venetian	Malyj Hidropark	Malyj	Velykyj Pivdennyj	Halernyj	Zhukiv	Topolevyj	Vodnykiv	Kozachyj	Promizhnyj	Olgyn
Water bodies	km^2		0.01	0.12			0.14	0.13	0.03				0.14	0.44		0.01	0.09	0.00	0.00
	%		3.46	2.64			2.65	9.32	1.49				22.01	7.67		1.60	6.47	0.15	0.13
Beaches, dunes, sands	km^2	0.0003	0.01	0.05	0.0002		0.09	0.05	0.04		0.0045		0.00	0.13					
	%	0.23	3.87	1.02	0.02		1.69	3.61	1.97		3.14		0.75	2.28					
Natural grasslands	km^2	0.08		1.57	0.10						0.01	0.15	0.09	0.94		0.06	0.42	0.13	0.70
	%	56.67		33.40	16.81						8.98	40.10	13.35	16.45		8.26	29.05	30.39	43.37
Transitional woodland-shrub	km^2	0.01	0.04	0.80	0.05		0.61	0.22					0.13	0.01			0.25		
	%	5.66	22.48	16.98	7.51		11.29	15.89					20.54	0.22			17.33		
Broad-leaved forest	km^2	0.06	0.12	1.05	0.45	0.19	2.27	0.46	1.34	0.05	0.08	0.23	0.21	3.55	0.10	0.09			
	%	37.43	64.54	22.28	73.34	100.00	42.26	33.02	72.36	100.00	57.41	59.90	31.87	62.35	100.00	12.71			
Coniferous forest	km^2						0.25	0.27	0.04										
	%						4.58	19.67	2.14										
Mixed forest	km^2						0.39							0.13		0.13	0.69	0.31	0.91
	%						7.27							2.31		17.89	47.15	69.47	56.49
Green urban areas	km^2			0.19															
	%			3.99															
Sport and leasure facilities	km^2		0.01	0.43	0.01		1.14	0.26	0.36				0.07	0.28					
	%		5.65	9.25	2.31		21.17	18.49	19.55				11.48	4.91					
Road and rail networks and associated land	km^2			0.49			0.49		0.05		0.04			0.04					
	%			10.43			9.09		2.49		30.47			0.78					
Discontinuous urban fabric	km^2													0.01		0.36			
	%													0.20		48.68			
Industrial or commercial units	km^2													0.04		0.08			
	%													0.64		10.84			
Mineral extraction sites	km^2													0.12					
	%													2.19					

Table 4. The percentage of the natural and engaged in economic activities areas in the Dnipro River islands within the city of Kyiv, Ukraine (source: the author's own calculations)

№	Name	Natural areas		Engaged in economic activities areas	
		km^2	%	m^2	%
1	Obolonskyj	0.1477	100	0	0
2	Pivnichnyj	0.1748	94.35	0.0105	5.65
3	Muromets	3.7677	80.32	0.9232	19.68
4	Chortoryj	0.4753	76.90	0.1428	23.10
5	Mizhmostnyj	0.1884	100	0	0
6	Trukhaniv	3.6615	68.04	1.7196	31.96
7	Dolobetskyj	1.0784	77.90	0.3059	22.10
8	Venetian	1.4103	75.99	0.4456	24.01
9	Malyj Hidropark	0.0525	100	0	0
10	Malyj	0.0996	69.53	0.0437	30.47
11	Velykyj Pivdennyj	0.3782	100	0	0
12	Halernyj	0.5739	88.52	0.0744	11.48
13	Zhukiv	4.1948	89.41	0.4969	10.59
14	Topolevyj	0.1005	100	0	0
15	Vodnykiv	0.2980	40.47	0.4383	59.53
16	Kozachyj	1.4602	100	0	0
17	Promizhnyj	0.4398	100	0	0
18	Olgyn	1.6035	100	0	0

Thus, the most common types of land use on the islands of the Dnipro River within the city of Kyiv are the broad-leaved forests, which occupy the largest area in total (10.2494 km^2). Broad-leaved forests also have on average the largest percentage of the area on individual island (about 59%) and are represented on 15 of the 18 islands. On some islands (Mizhmostnyj, Malyj Hidropark, Topolevyj) the broad-leaved forests occupy 100% of the territory). In second place in terms of total area on the islands are the natural grasslands (4.2564 km^2), in third place are the sport and leasure facilities (2.5707 km^2). However, if we consider the specific land use on each individual island, the mixed forests are in second place in terms of percentage of land use (on average about 34%), and natural grasslands are in third place (27%).The least common types of land use are mineral extraction sites and green urban areas, each of them is represented on only one island. The smallest area as a whole on all islands is occupied by industrial or commercial units (0.1163 km^2), on average, the smallest percentage on an individual island is occupied by mineral extraction sites (about 3%).

Thus, it can be seen that, although sport and leasure facilities generally have a significant area on the islands, on any particular island they do not occupy a significant area (from 2 to 19%). Also partly to the tourist infrastructure can be attributed and equipped beaches, which also do not occupy a significant area on a separate island (up to 3.6%). Thus, the islands, having a strong recreational potential, are not used at full capacity.

2. The map of the islands land use can determine the percentage of natural and relatively natural areas, as well as the percentage of areas engaged in economic activities.

Thus, the most used are the islands of Vodnukiv, Trukhaniv, Malyj, Venetian, Chortoryj, Dolobetskyj and Muromets. On them the degree of naturalness varies from 40 to 80%. The most natural are the islands of Obolonskyj, Mizhmostnyj, Malyj Hidropark, Velykyj Pivdennyj, Topolevyj, Kozachyj, Promizhnyj and Olgyn, where the number of natural landscapes is 100%. These islands have the greatest potential for tourism development.

3. For the development of the tourism industry it needs to determine the accessibility of these islands for vacationers.

To determine the ease of access to the islands should be calculated in points of transport accessibility. No regular traffic, the island isaccessible onle by boat - 1 point, the presence of a pedestrian bridge -2 points, the presence of a road bridge -3 points, the availability of public transport - 4 points .. If the bridge passes through the island, but it is not possible to get to the island - 0 points. Actual accessibility means the presence of functioning bridges now. Prospective accessibility means the presence of bridges under construction or bridges without descent to the island. Thus, the most accessible islands are Venetian, Trukhaniv, Muromets and Halernyj, which can be reached even by public transport. The least accessible are the south islands – Kozachyj, Promizhnyj, Olgyn, also the islands of Pivnichnyj, Chortoryj, Mizhmostnuj, Malyj, Malyj Hodripark and Topolevyj, for which there is no regular transportation, you need to rent a boat to reach them. Therefore, a large part of the islands is now accessible only by boat, which makes it difficult for vacationers to access them.

Table 5. The accessibility of the Dnipro River islands within the city of Kyiv, Ukraine (source: the author's own calculations)

№	Name	Number of pedestrian bridges		Number of road bridges		Total number of bridges		Actual points	Prospective points
		Actual	Prospective	Actual	Prospective	Actual	Prospactive		
1	Obolonskyj	0	2	0	0	0	2	0	2
2	Pivnichnyj	0	0	0	0	0	0	0	0
3	Muromets	0	0	1	1	1	1	4	4
4	Chortoryj	0	0	0	0	0	0	0	0
5	Mizhmostnyj	0	0	0	0	0	0	0	0
6	Trukhaniv	1	1	1	2	1	2	4	4
7	Dolobetskyj	0	0	1	1	1	1	3	3
8	Venetian	0	0	1	2	1	2	4	4
9	Malyj Hidropark	0	0	0	0	0	0	0	0
10	Malyj	0	0	0	0	0	0	0	0
11	Velykyj Pivdennyj	0	0	0	1	0	1	0	3
12	Halernyj	1	1	1	1	2	2	4	4
13	Zhukiv	0	0	2	2	2	2	3	3
14	Topolevyj	0	0	0	0	0	0	0	0
15	Vodnykiv	0	0	1	1	1	1	3	3
16	Kozachyj	0	0	0	0	0	0	0	0
17	Promizhnyj	0	0	0	0	0	0	0	0
18	Olgyn	0	0	0	0	0	0	0	0

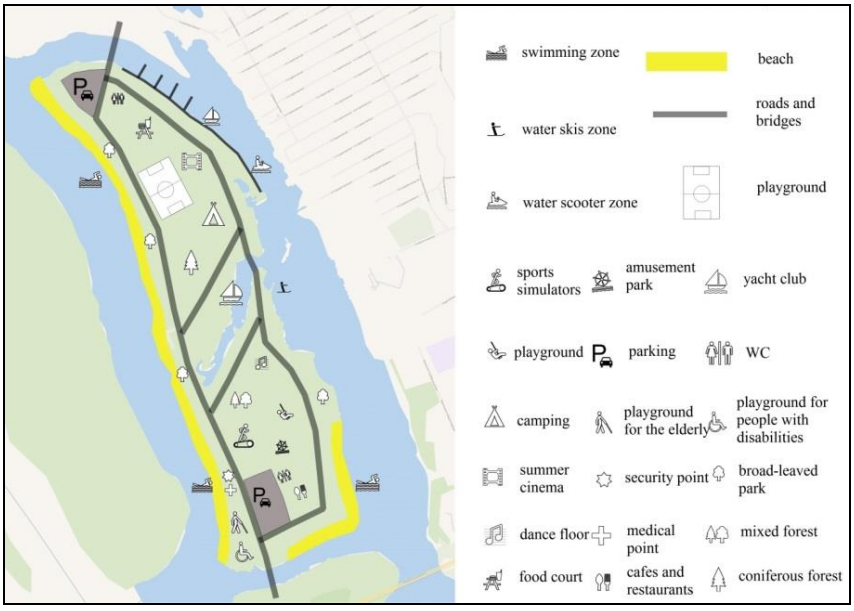

Figure 3. The landscape design proposal e.g. for the Dolobetskyj island (source: the author's own calculations)

4. Assessment of landscape diversity

Also, to assess the tourist potential of the islands, the landscape diversity of these islands should be assessed.

To assess landscape diversity, the author of the article developed such a method. The number of species of natural landscapes should be counted in points, 1 point for each species (for example, only forest – 1 point, forest and grassland – 2 points, if there is an inland water body – 3 points). So, the most diverse are the large islands – Trukhaniv, Muromets and Zhukiv, where there are different types of forests, transitional woodland-shrub and grasslands. The least diverse are the small islands - Mizhmostnyj, Malyj Hydropark and Topolevyj, which are represented only by broad-leaves forest.

5. Suggestions for tourist use of Dolobetskyj island

The diagram shows a proposal for the use of the island Dolobetskyj. This island was chosen because of its convenient location (you can even get there by public transport), significant landscape diversity - there are broad-leaves and coniferous forests and water bodies, as well as due to the irrationality of its use - the island actually uses only its southern part. The northern part is occupied by "wild" tourists, who restrict the legal recreation of other vacationers. I propose to significantly increase the beach area, which will occupy the entire west and part of the east coast. Thanks to this, vacationers will be able to evenly space and keep their distance, which is very important during the COVID-19 pandemic. Near the bridge connecting the island of Dolobetskyj with the island of Venetian, you should place an intercepting car parking, and make the island exclusively pedestrian. A playground for people with disabilities should be located near the entrance, as well as a playground for the elderly, so that they can easily get here.

A little further north is a medical center and a security point. In the south-eastern part, restaurants should be located, so that the sounds and smells of restaurants will not disturb most vacationers. A little further north, in the coastal grove, you should place playgrounds. They are located quite close to the entrance in the birch grove, which is quite bright, so children will be comfortable. Near the playground you can place the outdoor sport simulators for athletes, as well as a dance floor for young people. In a place where the river runs deep into the island, a yacht club for small boats will be appropriate, and a little further north - a place for boats and motor boats. Further north, in a coniferous forest, you can camp – away from vacationers who arrive for one day. Next to the campsite, a sports ground and a summer cinema will be appropriate, which will allow you to have fun outdoors. Next, food courts can be placed so that campers can dine al fresco. On the northern outskirts, another bridge should be built to connect with the east part of Kyiv, and near it – an intercepting parking lot. Be sure to have public toilets near restaurants and food courts.

Table 6. The landscape diversity of the Dnipro River islands within the city of Kyiv, Ukraine (source: the author's own calculations)

№	Name	Kinds of natural landscape	The number of points
1	Obolonskyj	Beaches, dunes, sands; Natural grasslands; Transitional woodland-shrub; Broad-leaved forest	4
2	Pivnichnyj	Beaches, dunes, sands; Water bodies; Transitional woodland-shrub; Broad-leaved forest	4
3	Muromets	Beaches, dunes, sands; Natural grasslands; Water bodies; Transitional woodland-shrub Broad-leaved forest	5
4	Chortoryj	Beaches, dunes, sands; Natural grasslands; Transitional woodland-shrub; Broad-leaved forest	4
5	Mizhmostnyj	Broad-leaved forest	1
6	Trukhaniv	Beaches, dunes, sands; Water bodies; Natural grasslands; Transitional woodland-shrub Broad-leaved forest; Coniferous forest; Mixed forest	7 (5)*
7	Dolobetskyj	Beaches, dunes, sands; Water bodies;Transitional woodland-shrub;Broad-leaved forest Coniferous forest	5 (4)*
8	Venetian	Beaches, dunes, sands; Water bodies; Broad-leaved forest; Coniferous forest	4 (3)*
9	Malyj Hidropark	Broad-leaved forest	1
10	Malyj	Beaches, dunes, sands; Natural grasslands; Broad-leaved forest	3
11	Velykyj Pivdennyj	Natural grasslands; Broad-leaved forest	2
12	Halernyj	Beaches, dunes, sands; Natural grasslands; Transitional woodland-shrub; Broad-leaved forest	4
13	Zhukiv	Beaches, dunes, sands; Water bodies; Natural grasslands; Transitional woodland-shrub Broad-leaved forest; Mixed forest	6 (5)*
14	Topolevyj	Broad-leaved forest	1
15	Vodnykiv	Water bodies; Natural grasslands; Broad-leaved forest; Mixed forest	4 (3)*
16	Kozachyj	Water bodies; Natural grasslands; Transitional woodland-shrub; Mixed forest	4
17	Promizhnyj	Water bodies; Natural grasslands; Mixed forest	3
18	Olgyn	Water bodies; Natural grasslands; Mixed forest	3

* - if all kinds of forests are counted as one landscape

CONCLUSION

Thus, the islands of the Dnipro River within the city of Kyiv have significant tourist potential, which is only partially used. The small number of bridges, and therefore inaccessibility, make many islands uninvolved in tourism. In addition, many islands develop only a small part of them, and most of the island is not involved in economic activities. On the example of Dolobetskyj island you can show how you to improve the tourist development of the island.

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