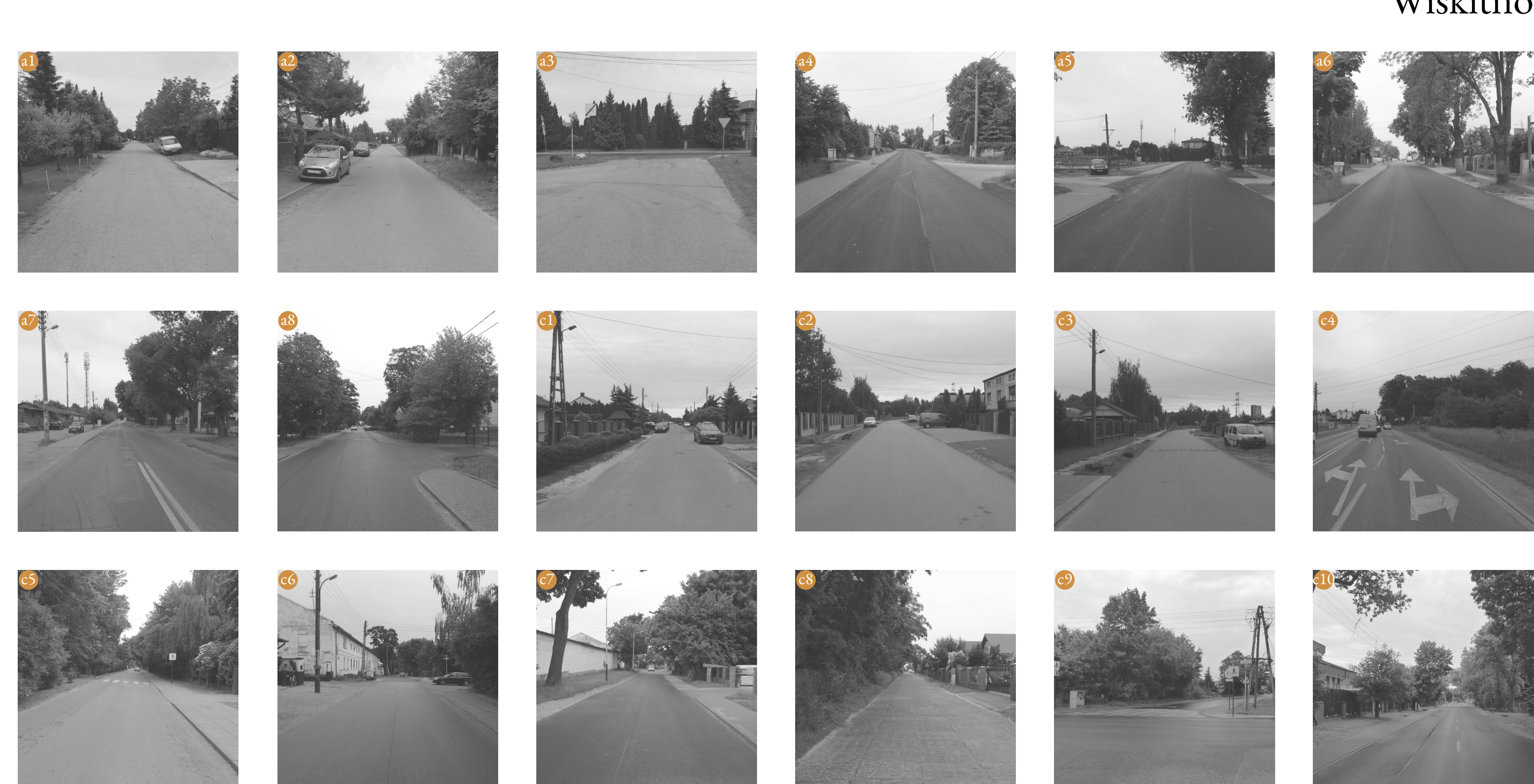




scoring

	Sidewalk continuity	Safety and lighting	Connectivity	Visual legibility	Access to destinations	Natural environment integration	Walk comfort	Microclimate	Overall experience of walking in this location - during day / afternoon	Overall experience of walking in this location / night / late evening
1	There is no continuity of sidewalk, and there is no road infrastructure	There is no presence of street lighting, and there are no pedestrian crossings	There are no pedestrian shortcuts/links	Perception is monotonous, however, there is no visual variety or landmarks	There are no shops or landmarks	There is little nature, and there are no views of open landscapes	There are no benches or traffic buffers	There is no chance for shade, there are no ponds, creeks or rivers	The greenery is not visible	The street is dark, without proper lighting. There are no bushes overlooking the street; the greenery is not maintained
2	There is no continuity of sidewalk, and there is no road infrastructure	There are pedestrian crossings but there are poorly visible or marked	There is at least one pedestrian shortcut/links	Perception is monotonous, however, there is limited visual variety (mostly groups of trees)	There are no shops or landmarks; however the distance to them is shorter	There is limited presence of nature, mainly grass; there are no views of the greenery (only close to single-family houses)	There are no benches, but there is limited presence of traffic buffers such as road margins or footes	There is limited chance for shade, there are some bushes, but placed in the distance; or the greenery is blocking the view from the road; on the grass, there are no windows to the street, the condition of the road is poor	The greenery is not maintained, there are some bushes, but placed in the distance; or the greenery is blocking the view from the road; on the grass, there are no windows to the street; the condition of the road is poor	The street is dark, without proper lighting. There are no bushes overlooking the street; the greenery is not maintained
3	There is a sidewalk, but it is limited to one side of the street and is in poor condition	There are pedestrian crossings with proper marking, but no lights	There are at least two pedestrian shortcuts/links	Perception is diverse; the road is changing direction, providing a landmark, but there are no landmarks	There is at least one shop; the walking distance does not exceed 10 minutes walking	There are views of the open landscape provided, there are trees and views of the street	There are no benches or traffic buffers	There is a chance for shade, but there are no ponds, creeks or rivers	There are bushes overlooking the street, distant or behind the garden greenery, the plants or bushes are not make a attractive to walk to the street	There are limited number of small spots, houses overlooking the street, but there are no garden greenery
4	There is a sidewalk, but it is limited to one side of the street; it is in good condition	There are pedestrian crossings with proper marking, with lights	There are at least three pedestrian shortcuts/links	There is at least one public landmark (churches - old and new, public building, old buildings)	There is at least one shop; there are other service function (school, medical clinic, etc.), and the walking distance is provided, there are trees and views of the street	There are views of the open landscape provided, there are trees and views of the street	There are a few benches and there are many traffic buffers	There is a chance for shade on both sides of the street, and there is no ponds in the proximity	There are houses overlooking the street, with windows directly overlooking the street, but there are no plants make a attractive to walk to the street	There are a few dark spots, houses overlooking the street, but there are no garden greenery overlooking the street, but there are no plants make a attractive to walk to the street
	There is a sidewalk on both sides of the street	There are pedestrian crossings with proper marking, with lights and both sides of the street pedestrian call button	There are more than three pedestrian shortcuts/links	There are many visible public landmarks (churches - old and new, public buildings, etc.)	There are many various service buildings	There is a road situated in both sides of the natural environment of fields, meadows, and other areas	There are many benches and there are many traffic buffers	There is a chance for shade on both sides of the street, and there are no ponds in the proximity	Overlooking the street, with windows directly overlooking the street, but there are no plants make a attractive to walk to the street	The street is well lit, with houses overlooking the street; the street is busy with many people, there are many bicyclists

criteria description

Walkability Criteria - description		
	Sidewalk continuity	Presence and condition of sidewalks along the route and pavement quality
	Safety and lighting	Presence of street lighting and safe pedestrian crossings
	Connectivity	Directness of routes and number of pedestrian shortcuts/links
	Visual legibility	Changing perspectives, visual variety, landmarks
	Access to destinations	Proximity to services (shops, schools, public transport, recreation)
	Natural environment integration	Presence of trees, greenery, and natural landscape visible from the route
	Walk comfort	Benches, buffers from traffic
	Microclimate	Shade or proximity to water (pond, river; creekeetc.)
Overall walkability	day / afternoon	Overall experience of walking in this location - during day / afternoon
	evening / night	Overall experience of walking in this location - during night / late evening

detailed results

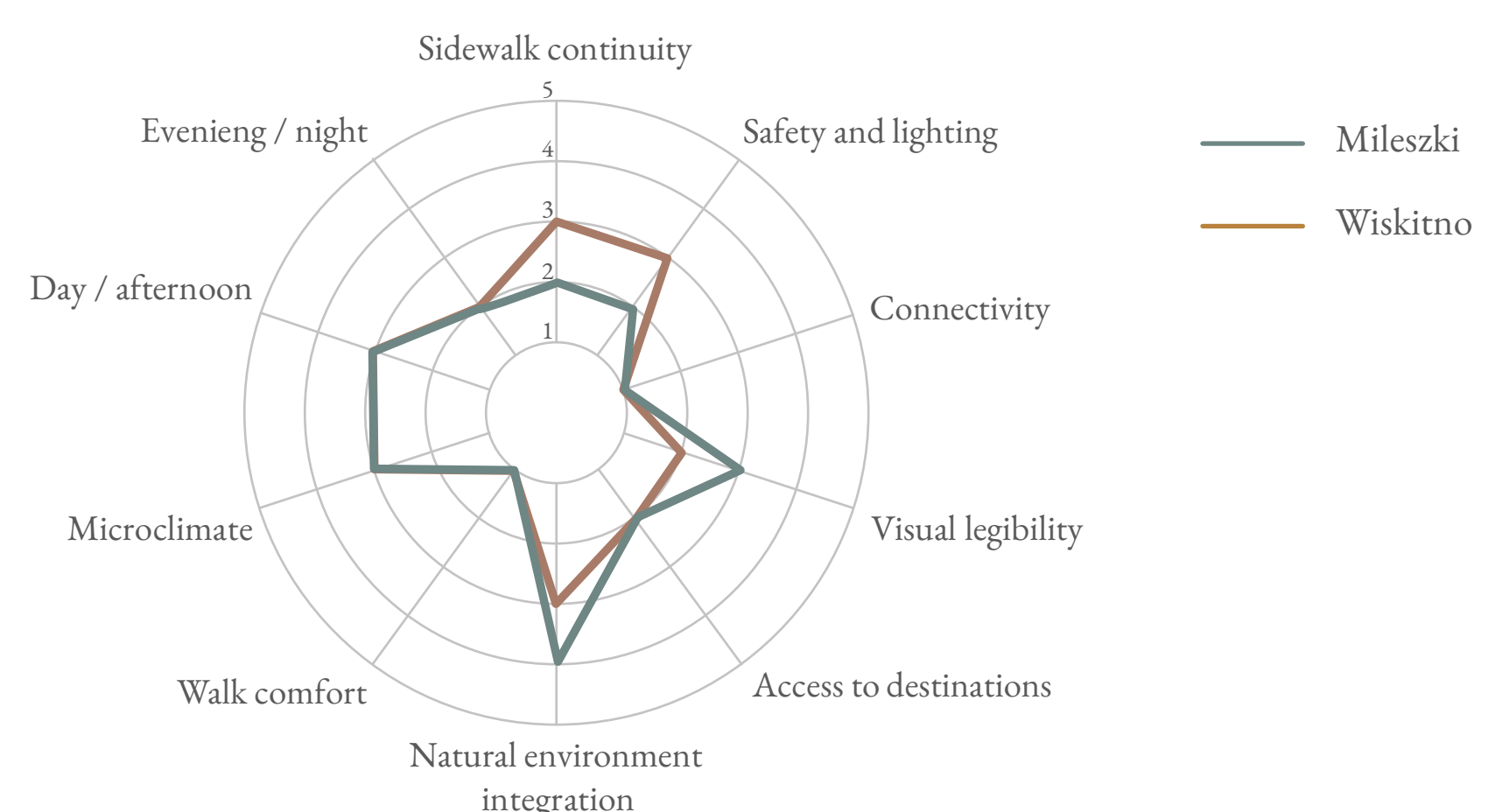
		Final Score	Final Score Range	Average score	Mileszki														Average score	Route 2 - CD						
Walkability Criteria		1	2	3	4	5	a1	a2	a3	a4	a5	a6	a7	a8	a9	c1	c2	c3	c4	c5	c6	c7				
	Sidewalk continuity	2					2	3	1	1	1	1	2	3	4	5	2	2	2	2	5	5	2			
	Safety and lighting	2					2	2	1	1	1	1	2	3	4	5	2	3	3	2	1	4	4			
	Connectivity	1	2	1	1	1	2	1	1	1	1	2	1	3	4	5	1	1	1	1	5	5	2			
	Visual legibility	1	3				3	2	2	2	2	2	3	4	4	5	3	3	3	3	3	5	5			
	Access to destinations	2					2	2	1	1	1	1	3	3	5	5	2	1	1	2	3	4	4			
	Natural environment integration				4		4	4	5	5	5	5	4	4	3	3	3	4	5	4	4	4	3			
	Walk comfort	1					1	1	1	1	1	1	1	1	1	2	1	1	1	2	1	1	1			
	Micromobility	3					3	3	4	5	5	5	5	4	3	3	2	3	4	4	3	3	2			
	day afternoon	2					3	3	3	3	3	3	4	5	5	5	3	3	3	3	4	4	4			
	evening / night	2					2	2	1	1	1	1	2	3	4	4	2	3	2	1	2	4	4			
Overall walkability																										

		Final Score	Final Score Range	Average score	Route 1 - AB										Wiskitno										Route 2 - CD									
					a1	a2	a3	a4	a5	a6	a7	a8		Average score	c1	c2	c3	c4	c5	c6	c7	c8	c9	c10										
Walkability Criteria	Safeway continuity	1	2	3	4	5																												
	Sidewalk and lighting		3				3		3	2	2	4	5	5	3	5	3	2	2	2	3	4	4	4	2	4	4							
	Connectivity	1	1				1	1	1	3	2	1	1	1	1	3	3	3	3	2	3	3	1	3	1	1								
	Visual legibility	2	2				2	1	1	1	2	3	2	2	2	2	2	2	1	1	1	2	2	1	2	3								
	Access to destinations	2	2				2	1	1	1	2	3	3	4	4	2	1	1	1	1	2	3	1	3	1	2								
Natural environment integration			3				3	3	3	3	3	3	3	2	4	3	2	2	2	3	3	3	3	3	4	4								
Walk comfort		1					1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1								
Micromobility day /afternoon			3				3	3	2	2	2	2	4	2	1	3	2	1	1	1	2	2	3	3	2	2								
Overall walkability eveninging / night			2				2	2	2	2	2	3	3	3	1	1	1	2	2	2	1	1	1	1	1	1								

How our cognitive system perceives the form of landscape, which then influences our emotions and behaviour, depends strongly on how we move. The observer's position and the chosen transportation mode affect the potential sensational input, which, in turn, through positive or negative reception, influences the behavioural responses and, as a consequence, becomes one of the elements which condition decisions on future behaviours. In the current research, inspired by the works of Gordon Cullen (2008), we aim to explore the environmental factors which affect walkability and modal split in peri-urban areas. For this purpose, we use walkability assessment matrix. When overlapped with the in-depth morphological analyses, this inquiry allows us to explore the selected locations and their redevelopment potentials, aiming to continue and strengthen their cultural and natural values. We are looking for the urban design proxy, which might be the most suitable for defining walkability features for the chosen sites.

We explore the two peri-urban locations in Lodz administrative borders - Wiskitno and Mileszki - which used to be independent villages and, in 1988, were incorporated into the Lodz municipality territory. Since then, they have gradually become popular residential destinations, welcoming sprawling development of different types and functions. Our study aims to define the paths for future redevelopment, focusing on improving the walkability conditions. We want to enhance the touristic and recreational opportunities based on the existing natural and cultural assets of the selected locations.

Results



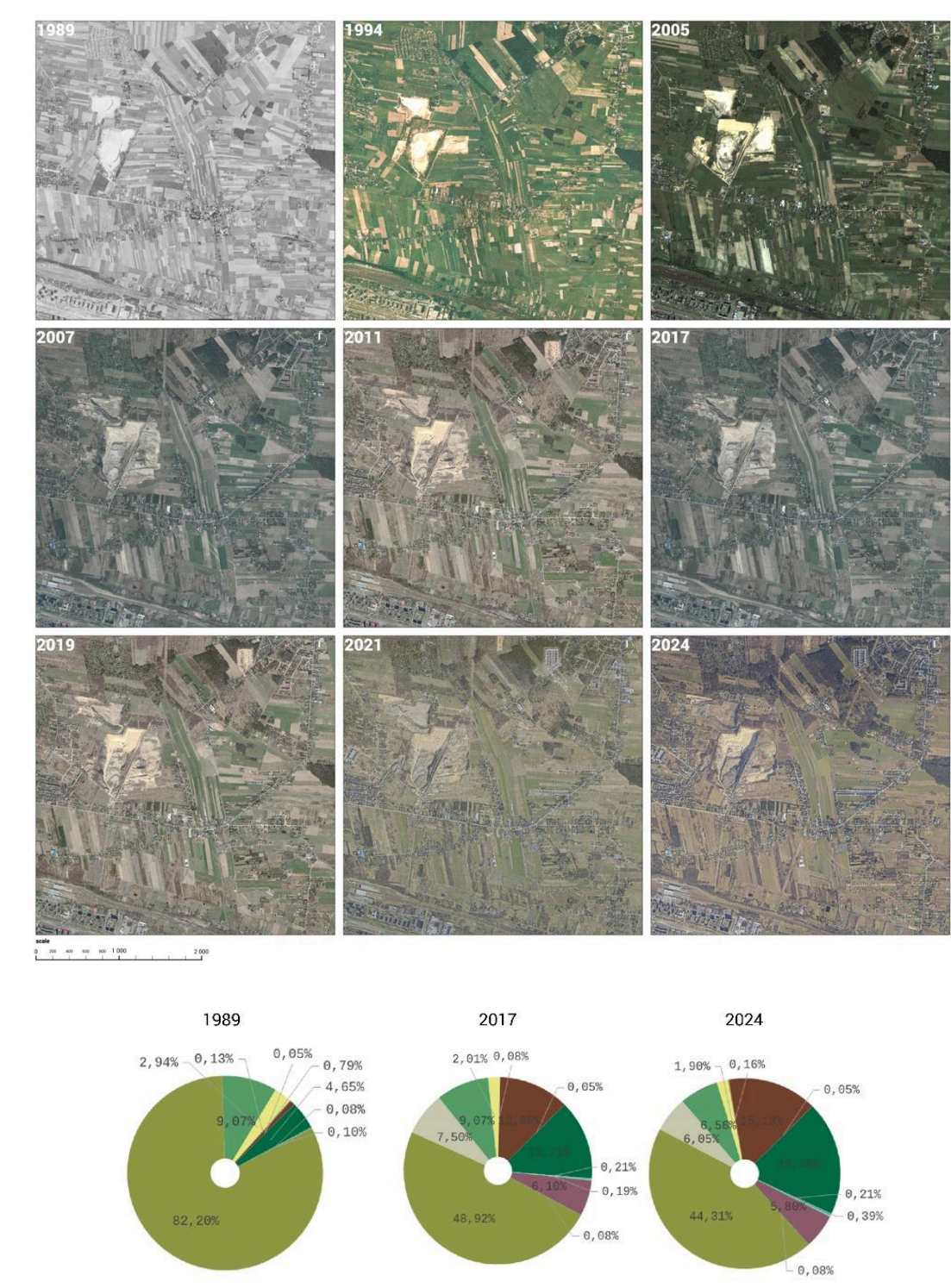
Conclusions

In every area, there are two designated pedestrian routes: Route AB connects the new residential developments to the local school and a transit stop, while Route CD links these residential areas to the church, cemetery, and another transit stop. Both routes have been designed to fit within a 15-minute walking isochrone, ensuring access to essential daily services. The conclusions are as follows:

- The growth of pedestrian infrastructure has lagged behind spatial changes and the increasing popularity of single-family housing developments.
- In all reviewed areas, a large part of the pedestrian infrastructure is made up of former field roads, which now act as the main vehicular access routes to new residential properties.
- In regions with scenic road views, pedestrian conditions are significantly lacking—especially in the evening and at night—due to insufficient lighting, a lack of pedestrian crossings, and poor visibility from residential windows.
- When nearing the centers of former villages, marked by a greater concentration of services, one can observe an enhancement in the continuity, quality, and illumination of sidewalks. Nonetheless, there is still a shortage of benches and shaded spots that could greatly enhance walking conditions, particularly in the summer months.

Land management dynamis

Mileszki 1989-2024



Wiskitno 1989-2024

