



INTERNATIONAL
BALKAN
UNIVERSITY
EXCELLENCE FOR THE FUTURE



XVIII International WoodEMA 2025 Scientific Conference

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES

Ohrid, North Macedonia

September 17th-19th 2025

Title of the paper: **PEOPLE - FOREST - WOOD: INCLUSIVE INTEGRATION MODELS
THE CASE OF THE KOBIERZYN URBAN FOREST PARK
IN THE KRAKÓW METROPOLITAN AREA IN POLAND**

Name of the authors:

Leszek Wanat, Jan Klimek,
Władysław Kusiak, Łukasz Sarniak, Marek Wieruszewski

Affiliation:

The Pontifical University of John Paul II in Kraków, Poland
Poznań University of Life Sciences, Poznań, Poland



XVIII International WoodEMA 2025 Scientific Conference

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES



*Can people, forests and forest-based products
"live" in symbiosis in our digital age?*

**PEOPLE - FOREST - WOOD: INCLUSIVE INTEGRATION
MODELS**

**THE CASE OF THE KOBIERZYN URBAN FOREST PARK
IN THE KRAKÓW METROPOLITAN AREA
IN POLAND**



1. The subject, or why is it such a problem?

- Modern people complain primarily about depression and loneliness. You know that? Almost everyone suffers from depression these days...
- Consequences: mental illness, suicide, lack of meaning in life – do you agree?
- Does nature have something to say to all of us here? Especially the forest, what the forest and then people produce based on the forest?



XVIII International WoodEMA 2025 Scientific Conference

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES



1a. People versus nature: alienation?





2. Problem / Place / Space

- Is the modern world, then, a psychiatric hospital?
- If a small image of today's world can be, for example, a mental hospital, then such a place was chosen for research.
- Do you know Krakow? In Poland? A royal, historic city, now a metropolis. And in this centre of activity: many, many people, each with their own mental burden.
- Maybe we have forgotten about contact with living nature, with forests, with biomaterials, also wood-based ones?
- We tested this in a pilot study... **One city: two places?**



XVIII International WoodEMA 2025 Scientific Conference

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES



Kraków, Wawel Castle on the Wisła River, panorama





XVIII International WoodEMA 2025 Scientific Conference

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES



Kraków, Hospital-city-garden in Kobierzyn





3. Materials / background to the study methods (a)

- The starting point for a possible evaluation of urban forest parks and their importance, was a retrospective analysis. It was based on historical, but also current data sources.
- The experience of forest complex users in Krakow-Kobierzyn, where the Dr. Józef Babiński Clinical Hospital operates, was verified. The site was designed as a garden-city.
- The case study for this place made it possible to assess the current situation and development dilemmas.

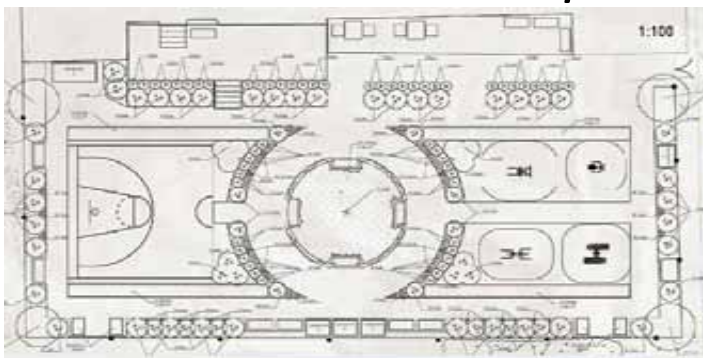


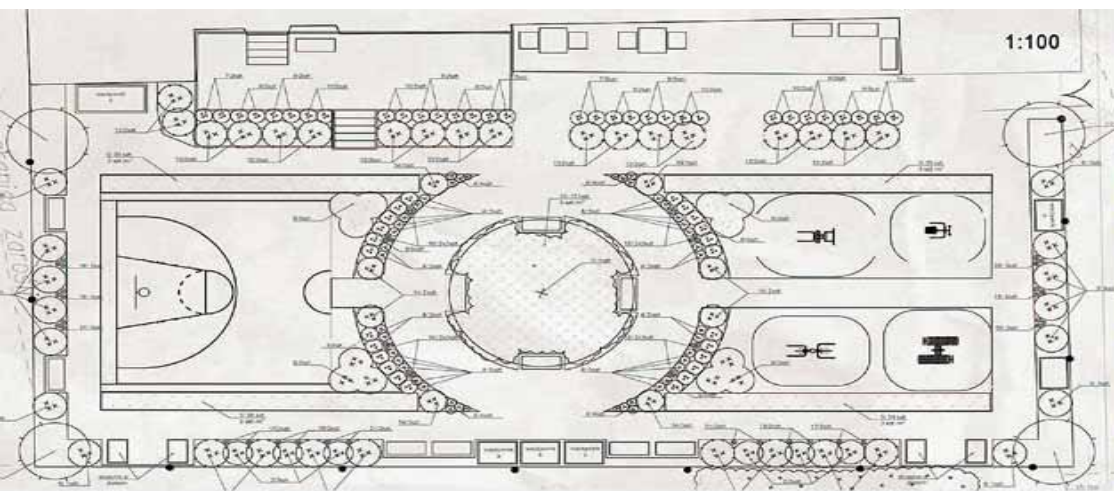
XVIII International WoodEMA 2025 Scientific Conference

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES



Therapeutic garden design at the court ward in the revitalised hospital park in Kobierzyn, Kraków







3. Materials / background to the study methods (b)

- A diagnostic survey completed the analysis (in 2024). Opportunities and threats to the activities of the unique forest complex were studied.
- Ten specialists were invited to the expert survey. Individual in-depth interviews were conducted. Doctors and carers responded on behalf of/based on the opinions of patients; this is a weakness of the study, but in the case of a pilot study, it was a necessity.
- They were supplemented by the authors' participatory observation during a visit to a forest-park in Kobierzyn.



4. Results

- The results of the pilot study were aggregated as anonymous.
- Finally, key relationships were identified: people – forest – wood, against the background of the most significant dysfunctions and needs of patients.
- So what is this image like?



Table 1. Criteria determining the inclusive integration model – on the case of Koblizyn.
 Source: own elaboration based on the results of individual and group interviews/3/

XVIII International WoodEMA 2025 Scientific Conference



INTERNATIONAL
BALKAN
UNIVERSITY
EXCELLENCE FOR THE FUTURE



КИ-ПАР
www.ki-par.com.mk

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES

CITY FOREST-BASED PARK INCLUSIVE INTEGRATION MODEL... So, what needs to be done?

Dysfunction / Need	PEOPLE's activity	FOREST urban garden	WOOD working therapy
(1) loneliness	?	?	?
(2) mental depression	?	?	?
(3) alcoholism	?	?	?
(4) neuroses	?	?	?
(5) mental disorders	?	?	?
(6) lack of work-life balance	?	?	?
(7) nature deficit disorder	?	?	?
(8) physical inactivity	?	?	?



To do: 4.1. Free yourself from loneliness

Dysfunction / Need	PEOPLE's activity	FOREST urban garden	WOOD working therapy
loneliness	mutual listening, interpersonal relationships	walking together, garden work	working together to find wood materials, as well as the purpose and recipients of the made items



4.2. Overcome mental depression

Dysfunction / Need	PEOPLE's activity	FOREST urban garden	WOOD working therapy
mental depression	medical therapy, pastoral care, building relationships and responsibility	cooperation in finding forest- sourced stuff for therapy workshops	making small wooden toys for hospitalised children



4.3. But how to stop a terrible addiction: alcoholism?

Dysfunction / Need	PEOPLE's activity	FOREST urban garden	WOOD working therapy
alcoholism	Alcoholics Anonymous AA-group, support from others, pastoral care	cleaning park and forest areas, shaping responsibility	simple woodworking crafts - as gifts for those in need



4.4. Tame or at least limit neuroses

Dysfunction / Need	PEOPLE's activity	FOREST urban garden	WOOD working therapy
neuroses	pharmacological treatment, personalised medical assistance	joint identification of tree and plant species during a forest walk	simple craftwork in wood



4.5. Mental disorders

Dysfunction / Need	PEOPLE's activity	FOREST urban garden	WOOD working therapy
mental disorders	pharmacological treatment, personalised medical assistance	identifying forest aromas, listening to birdsong, contemplating silence	simple woodworking crafts - as gifts for those in need



4.6. Eliminate the lack of work-life balance

Dysfunction / Need	PEOPLE's activity	FOREST urban garden	WOOD working therapy
lack of work- life balance	verification of life priorities, building relationships and responsibility	planning walking in the forest with loved ones, friends, other patients	making small wooden Christmas and Easter decorations and religious souvenirs



4.7. Nature deficit disorder

Dysfunction / Need	PEOPLE's activity	FOREST urban garden	WOOD working therapy
nature deficit disorder	regular urban- forest-garden walks	collection of wood- based waste for small-scale arts and crafts	making little wood- based things as part of small-scale handicrafts



4.8. Physical inactivity

Dysfunction / Need	PEOPLE's activity	FOREST urban garden	WOOD working therapy
physical inactivity	simple walking programme, appropriate forms of activity, jogging	walking and sports activities on forest trails	physical work in „home” carpentry



Table 1. Criteria determining the inclusive integration model – on the case of Kobierzyn.
Source: own elaboration based on the results of individual and group interviews/3/
XVIII International WoodEMA 2025 Scientific Conference

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES



CITY FOREST-BASED PARK INCLUSIVE INTEGRATION MODEL

24 times YES... So, it's not impossible! Let's get to work... How? To be for...

Dysfunction / Need	PEOPLE's activity	FOREST urban garden	WOOD working therapy
(1) loneliness	✓	✓	✓
(2) mental depression	✓	✓	✓
(3) alcoholism	✓	✓	✓
(4) neuroses	✓	✓	✓
(5) mental disorders	✓	✓	✓
(6) lack of work-life balance	✓	✓	✓
(7) nature deficit disorder	✓	✓	✓
(8) physical inactivity	✓	✓	✓



5. Conclusions

- (1) people need a hospital forest garden that is renovated and functional;
- (2) active therapy is needed not only for current patients, but also for potential ones.

If human loneliness tops the list of dysfunctions in the digital age, then it is essential to listen to the voice of nature and other people, preferably by going to the forest.

Together...



XVIII International WoodEMA 2025 Scientific Conference

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES



FORESTS AND WOOD FOR THE FUTURE...?

But what will the future hold?





XVIII International WoodEMA 2025 Scientific Conference

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES



Значи, дали Охридската шума
и Охридското езеро, нивниот прекрасен
звук - шум, ќе го врати здравјето
на човечката душа и тело?
Да, благодарение на вашето присуство,
драги пријатели!

Thank you for your attention!

Ви благодарам за вашето внимание!





XVIII International WoodEMA 2025 Scientific Conference

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES



Thank you for your attention!

Ви благодарам
за вашето внимание!





INTERNATIONAL
BALKAN
UNIVERSITY
EXCELLENCE FOR THE FUTURE



XVIII International WoodEMA 2025 Scientific Conference

WOOD FOR THE FUTURE: INTEGRATING SUSTAINABILITY ACROSS INDUSTRIES

Ohrid, North Macedonia

September 17th-19th 2025

Thank you for your attention!
Ви благодарам за вашето внимание!

**Title of the paper: PEOPLE - FOREST - WOOD: INCLUSIVE INTEGRATION MODELS
THE CASE OF THE KOBIERZYN URBAN FOREST PARK
IN THE KRAKÓW METROPOLITAN AREA IN POLAND**

Name of the authors:

**Leszek Wanat, Jan Klimek,
Władysław Kusiak, Łukasz Sarniak, Marek Wieruszewski**

Affiliation:

The Pontifical University of John Paul II in Kraków, Poland

Dorota University of Life Sciences, Dorota, Poland