



POD POVRŠJEM/BENEATH THE SURFACE

Zgodbe tal skozi risbe študentov krajinske arhitekture

/Stories of Soils Through the Drawings of Landscape Architecture Students

**BF**UNIVERZA V LJUBLJANI
Biotehniška fakulteta**Urednici in avtorici besedila** / *Editors and text writers*

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KRAJINA SE NENEHNO SPREMINJA.*/THE LANDSCAPE IS CONSTANTLY CHANGING.*

Nekatere spremembe opazimo, medtem ko druge ostajajo skrite našim očem. Spremembe v rabi tal in podnebne spremembe lahko pomembno vplivajo na tla. Zavedanje o pomenu tal in njihovi ranljivosti so študentje krajinske arhitekture Biotehniške fakultete Univerze v Ljubljani izrazili skozi risbe, na katerih so prikazali tako tla v naravnem razvoju kot tudi degradirana tla.

/Some changes are visible, while others remain hidden from our view. Changes in land use and climate can significantly affect soils. Students of Landscape Architecture at the Biotechnical Faculty, University of Ljubljana, have demonstrated their awareness of the importance and vulnerability of soils through drawings, showcasing both soils in their natural development and degraded soils.

Krajinski arhitekt ima zaradi interdisciplinarnosti stroke svojevrsten

pogled na prostor, povsem drugačen od drugih umetniških strok. Risbe so nastale kot rezultat sodelovanja arhitektke doc. mag. Mateje Kregar Tršar in pedologinje izr. prof. Marjetke Suhadolc ter izbranih študentov krajinske arhitekture iz različnih letnikov. So odsevi njihovega razmišljanja in poznavanja tal.

/A landscape architect has a unique perspective on space due to the interdisciplinary nature of the field, which differs from other artistic disciplines. These drawings are the result of collaboration between architect Assist. Prof. Mateja Kregar Tršar, and soil scientist Assoc. Prof. Marjetka Suhadolc, and selected students of landscape architecture from various academic years. They reflect the students' thinking and understanding of soils.

V krajinski arhitekturi je risba selektivni prikaz prostora, je analitično sredstvo, s katerim se študentje naučijo gledati, opazovati, razumeti prostor v katerem živimo. Pozorni postanejo na njegove sestavine in razmerja, pa tudi na drobne detajle, ki bi v drugih predstavitvenih tehnikah lahko ostali neopaženi, prezrti. Risanje očem sicer nevidnih prereзов tal in rabe, ki se na njih udejanja, ustvarja zavedanje o njuni medsebojni

povezanosti in odvisnosti. Projekt smo organizirali z namenom osveščanja družbe o pomenu in ohranjanju tal, kar je eden od ciljev Evropske misije za tla.

/In landscape architecture, a drawing serves as a selective representation of space and an analytical tool, enabling students to observe, interpret, and understand the environment around them. They become attentive to its components and relationships, as well as to the small details that other presentation techniques might overlook or ignore. Drawing the otherwise invisible cross-sections of soils and their land uses fosters an awareness of their interconnection and interdependence. This project was organized to raise public awareness about the importance and protection of soils, which aligns with the goals of the European Soil Mission.

RISBE TAL V NARAVNEM RAZVOJU

*/DRAWINGS OF SOILS IN THEIR
NATURAL DEVELOPMENT*



Anastasia Petrusheva
Distrična rjava tla na
glinavcih in peščenjakih
*/Dystric Brown Soils on
Shales and Sandstone*



Eva Lazar
Evtrična rjava tla na
peščeno-prodnatem
aluviju
*/Eutric Brown Soils on
Sandy-Gravel Alluvium*



Katja Leban
Rjava
pokarbonatna
tla na apnencu in
dolomitu
*/Brown Soils on
Limestone and
Dolomite*

**TLA SO KRHKKA IN BIOLOŠKO
AKTIVNA ZGORNJA PLAST
ZEMLJINE SKORJE,**

*/SOILS ARE THE FRAGILE AND
BIOLOGICALLY ACTIVE UPPER
LAYER OF THE EARTH'S CRUST,*

debela od nekaj centimetrov do več deset metrov. Nastajajo zelo počasi, saj razvoj le nekaj milimetrov zgornje plasti tal traja desetletja ali celo stoletja. So rezultat zapletenih procesov in interakcij v času in prostoru, zaradi česar so zelo raznolika po obliki, lastnostih in primernosti za različne vrste rabe.

/ranging in thickness from just a few centimetres to several tens of metres. Their formation is an extremely slow process, with just a few millimetres of topsoil taking decades or even centuries to develop. Soils result from complex processes and interactions across time and space, which make them diverse in form and properties, and suitability for various types of land uses.



Katja Založnik
Pseudoglejena
tla na glinavcih s
pokopanim organskim
horizontom
*/Pseudogley on Shales
with a Buried Organic
Horizon*



Maša Kosmač
Hipoglej na
glinah in ilovicah
*/Hypogley on
Clays and Silts*

TLA SO NENADOMESTLJIV NARAVNI VIR.

*/SOILS ARE AN IRREPLACEABLE
NATURAL RESOURCE.*

Zagotavljajo hrano, vlaknine in gorivo, čistijo in zadržujejo vodo, kar pomaga blažiti suše in poplave. Poleg tega tla iz ozračja vežejo ogljik in zmanjšujejo emisije toplogrednih plinov. Z razgradnjo organskih ostankov in kroženjem hranil omogočajo rodovitnost, zmanjšujejo onesnaženje ter ohranjajo biotsko pestrost in habitate. Kot temelj ekosistemov tla sooblikujejo značaj krajine in so lahko arhiv naravne ter kulturne dediščine.

/Soils provide food, fibres, and fuel; purify and retain water, thereby mitigating droughts and floods; sequester carbon from the atmosphere, thereby reducing greenhouse gas emissions. Through the decomposition of organic residues and nutrient cycling, soils maintain fertility, reduce pollution, and support biodiversity and habitats. As the foundation of ecosystems, soils shape the character of the landscape and can also act as archives of natural and cultural heritage.



Tatjana Bernot
Distrična rjava tla na
glinah in ilovicah
*/Dystric Brown Soils
on Clays and Silts*



Tina Goričan
Hipoglej na
glinastem aluviju
*/Hypogley on Clay
Alluvium*

RISBE DEGRADIRANIH TAL

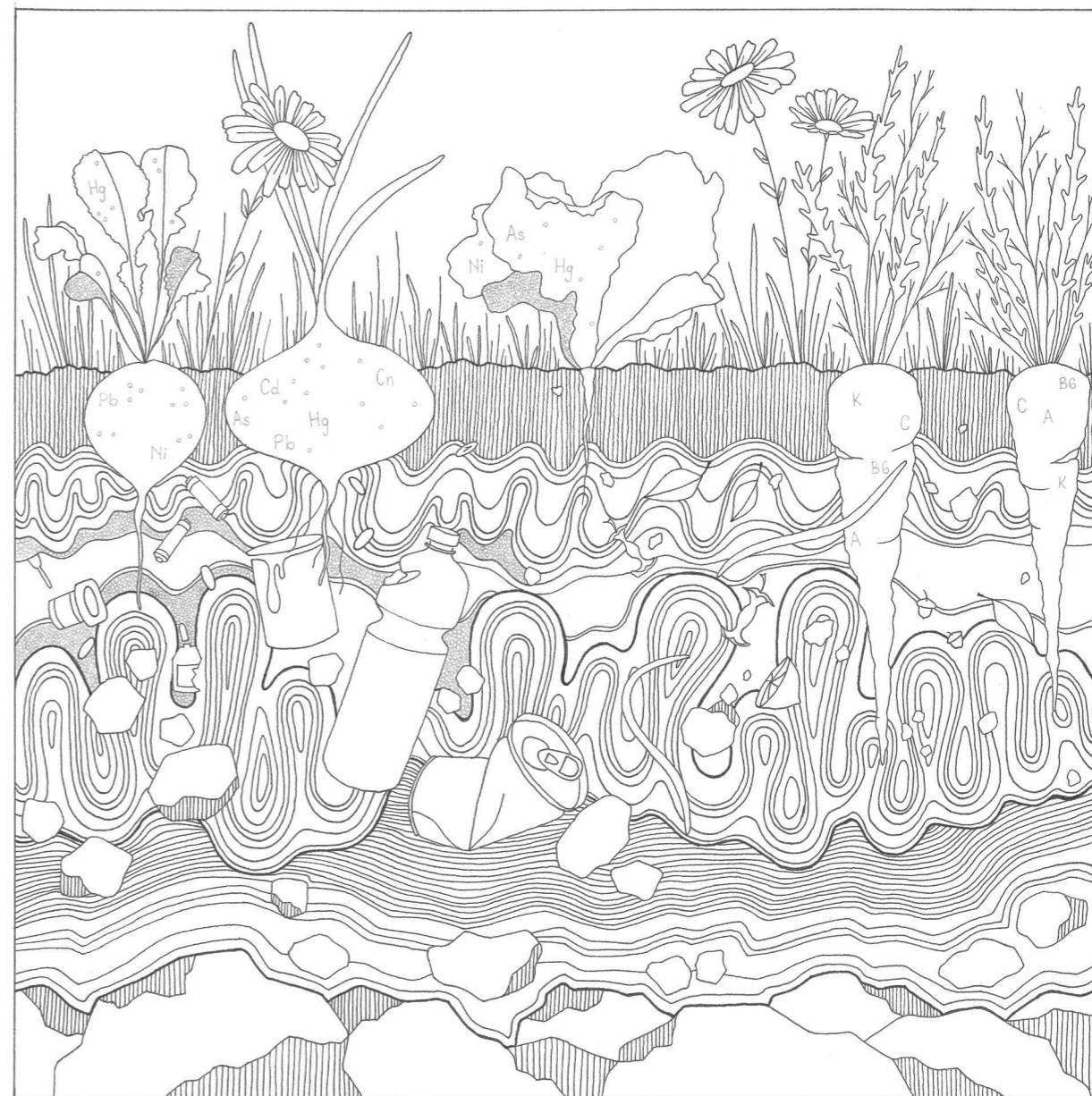
/DRAWINGS OF DEGRADED SOILS

TLA PO VSEJ EVROPI IN SVETU SO ŽE MOČNO OGROŽENA.

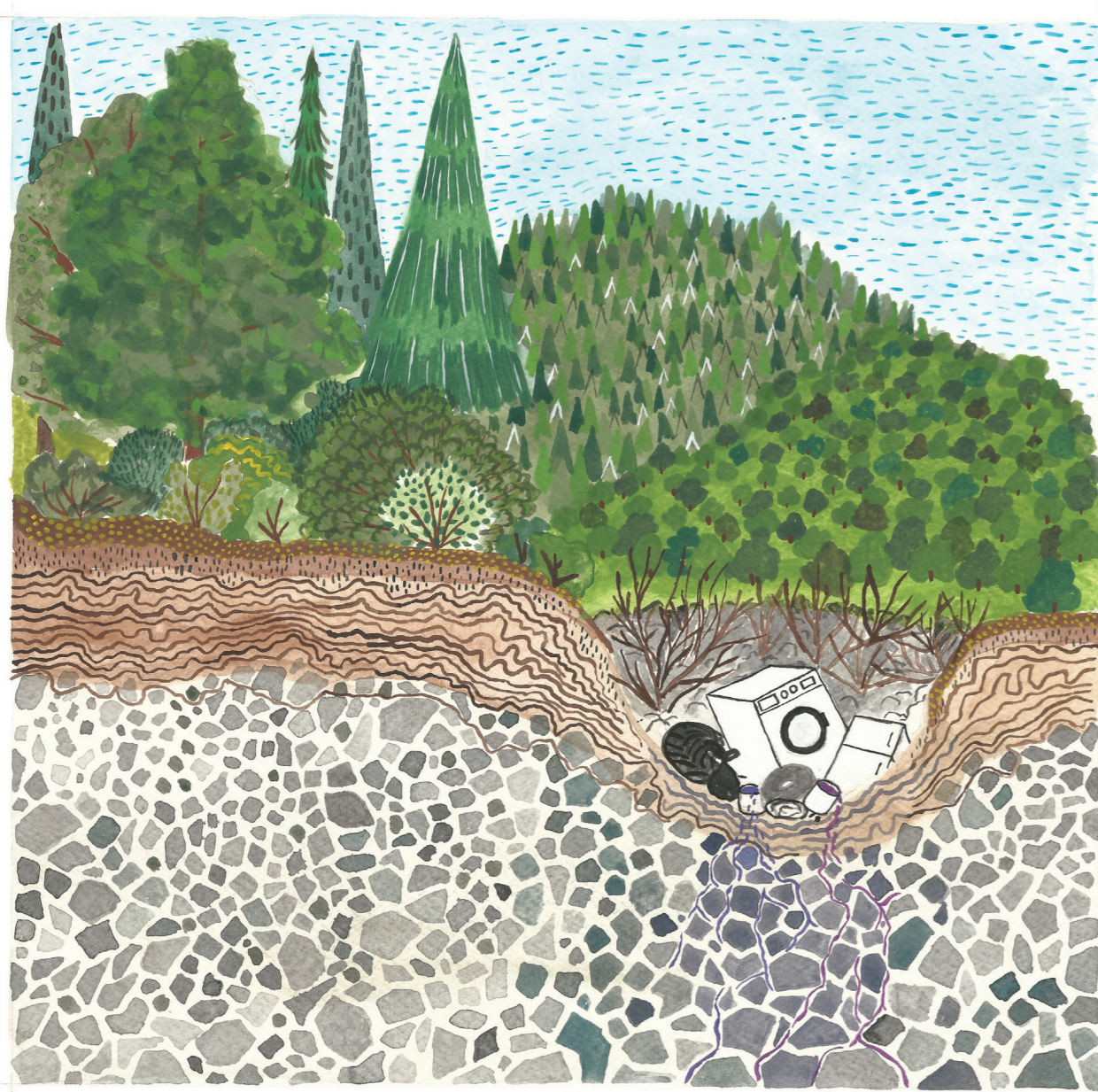
*/SOILS ACROSS EUROPE AND
GLOBALLY ARE FACING SERIOUS
THREATS.*

Urbanizacija, industrializacija ter krčenje gozdov in intenzivno kmetijstvo, v kombinaciji s podnebnimi spremembami, povzročajo poslabšanje kakovosti tal, kar na koncu vodi v njihovo nepovratno izgubo.

/Urbanization, industrialization, deforestation, and intensive agriculture, combined with climate change, are causing a decline in soil quality, ultimately resulting in their permanent loss.



Tatjana Bernot Onesnaženje tal: Breme preteklosti/*Soil Pollution: A Burden of the Past*



Eva Wallner Divja odlagališča: Odpadki zastrupljajo tla/Landfills: Waste Poisoning the Soil

**MED KLJUČNIMI PROCESI
DEGRADACIJE TAL SO
POZIDAVA ZEMLJIŠČ,
VETRNA IN VODNA EROZIJA,
ONESNAŽEVANJE ...**

*/KEY PROCESSES OF SOIL
DEGRADATION INCLUDE LAND
SEALING, WIND AND WATER
EROSION, SOIL CONTAMINATION ...*

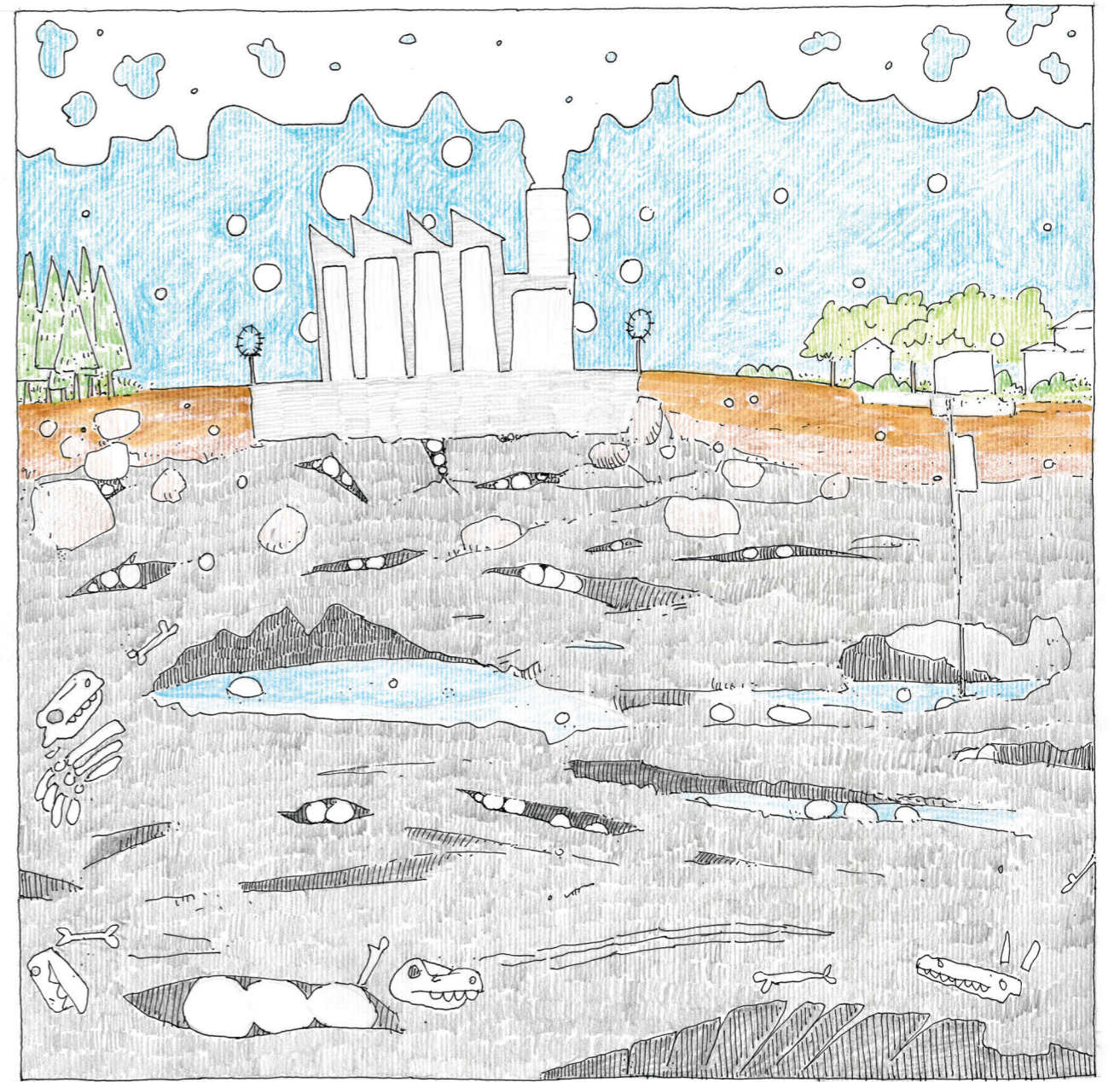
... plazenje tal, zbijanje, zakisanje, zasoljevanje ter zmanjševanje vsebnosti organske snovi in biodiverzitete tal. Vsi ti procesi zmanjšujejo sposobnost tal za opravljanje ekosistemskih funkcij, ki so ključne za zdravje okolja in človeka. Zaradi izjemno dolgotrajnega procesa nastajanja tal so tla, ki so bila degradirana zaradi pozidave ali zapuščavljanja, praktično izgubljena v človeškem časovnem okviru.

/... landslides, soil compaction, acidification, salinization, and the depletion of organic matter and loss of soil biodiversity. These processes diminish the ability of soils to perform key ecosystem functions essential for environmental and human health. Due to the extremely slow soil formation process, soils that have been degraded through urbanization or desertification are practically lost within the human timeframe.



A
B
C
D

Tim Gerdin Suša: Tla izgublajo svojo moč/*Drought: Soils Losing their Strength*



David Trontelj Tla brez življenja: Ogroženi temelj ekosistema
/Soils Without Life: An Endangered Foundation of Ecosystems

ČAS JE, DA UKREPAMO.

/IT IS THE TIME TO ACT.

Poznavanje lastnosti in stanja naših tal je ključnega pomena za prilagajanje rabe in gospodarjenja s tlemi v smeri trajnostnega razvoja. Ob tem pa je izjemno pomembno, da ozaveščamo mlade o vrednosti tal kot naravnega vira in o načinih njihovega varovanja. Naša skupna odgovornost je, da ohranimo ta dragoceni naravni vir in omogočimo zdrava tla tudi prihodnjim generacijam.

/Understanding the properties and condition of our soils is essential for adapting land use and management to support sustainable development. Equally important is raising awareness among young people about the value of soils as a natural resource and the measures needed to protect them. Safeguarding this precious resource is our collective responsibility, ensuring healthy soils for future generations.



Leda Delfina Steidl Porenta Krčenje gozdov: Uničenje tal zaradi pridobivanja surovin
/Deforestation: Soil degradation Due to Raw Material Extraction

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