

EDUCATIONAL POLYGON - DOLE

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Outdoor learning with our own experience



SELF-SUFFICIENCY ON 1,5 HECTAR



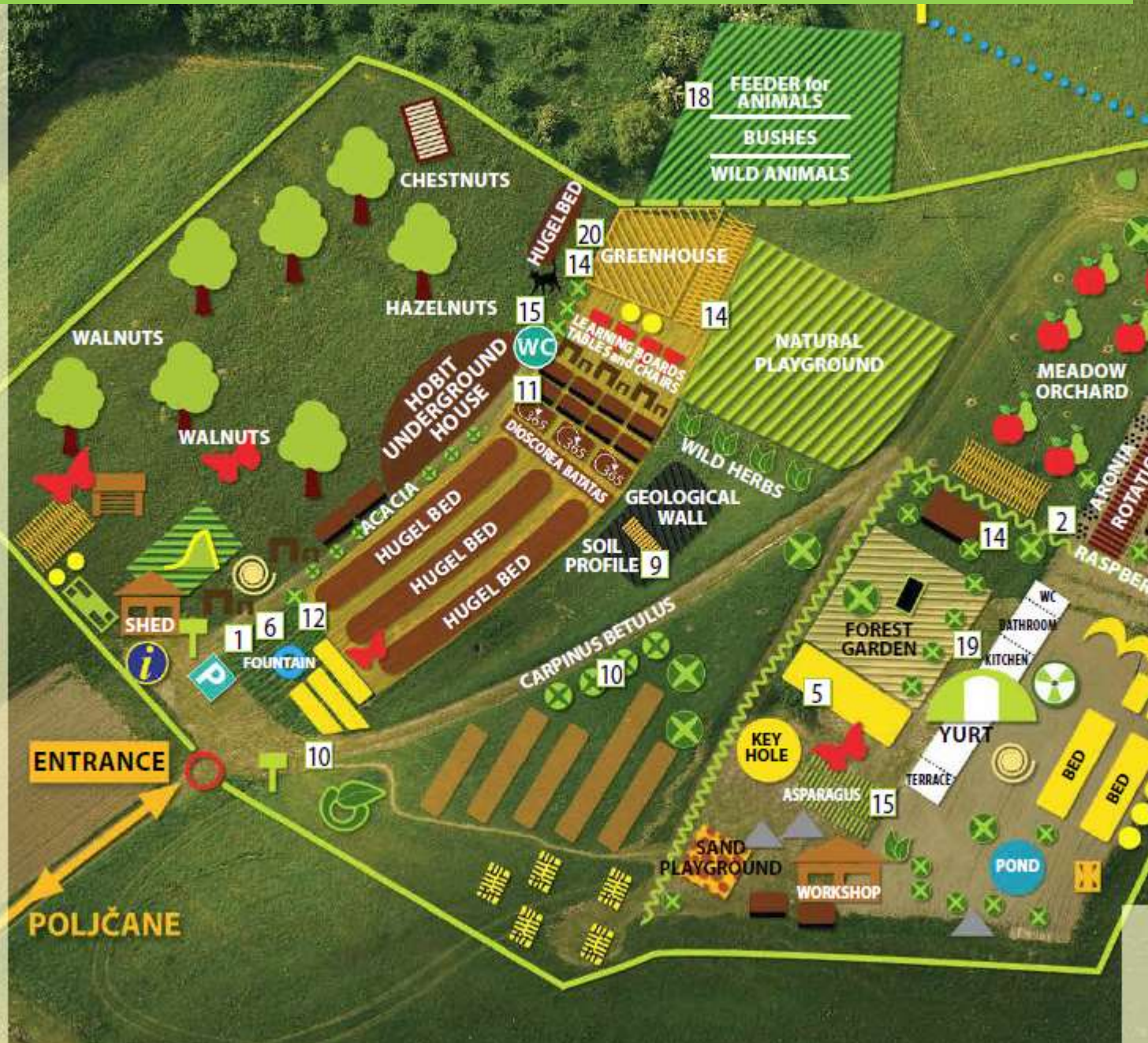
PERMACULTE, ECOREMEDIATION, AGROECOLOGY

PERMACULTURE

-  Fenced area
-  Bertie's fence
-  Spiral bed
-  Beds
-  Card, textile beds
-  Key bed
-  High beds
-  Whole year garden
-  Straw beds
-  Herb bed
-  Asparagus
-  Trees and bushes
-  Terrace
-  Soil profile
-  Meadow orchard
-  Chestnuts, walnuts, hazelnuts
-  Birch
-  Willow
-  Wild herbs
-  Insect hotel
-  Cat home
-  Compost
-  Natural ecosystem
-  Observatory
-  Medieval weather station
-  Sun power plant and heating water collector
-  Water solar system
-  Tents and cottages
-  Shed and workshop
-  Fountain
-  Information board
-  Learning boards
-  Sand playground
-  Children playground
-  Tables and chairs
-  Toilet
-  Parking
-  Info point

ERM SYSTEMS

- 1 Bioenbankment
- 2 Ecoremediation – theory
- 3 Phytoremediation plants
- 4 Indicator plants
- 5 Dynamic bioaccumulations
- 6 Rainfall garden
- 7 Monitoring of the storm water
- 8 Bio retention filter
- 9 Erosion solutions
- 10 Vegetation belt
- 11 ERM ditch
- 12 Bio filters
- 13 Various natural cleaning systems
- 14 Precipitation water collection
- 15 Green roof



Polygon Dole 2010 before 8 years



Polygon Dole 2018 – today



The basic question is: how to become self-sufficient



Methodology support for outdoor learning



High bed garden on permaculture approach



Yurt – mongolian house



Yurt inside







Sun energy



Greenhouse



Greenhouse inside



Hobbit house for saving energy



Hobbit house inside





Innovation for mitigation climate changes

Pond without plastic isolation



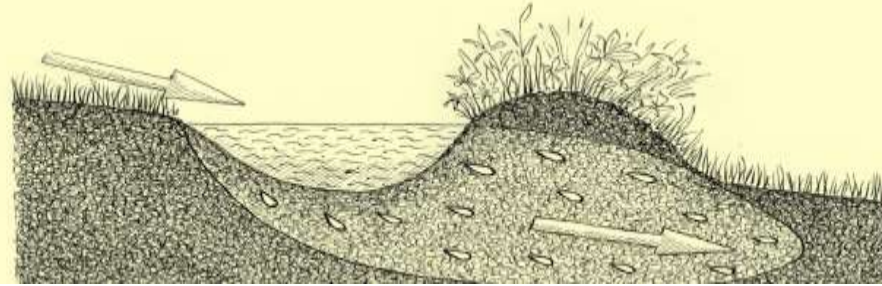
Travne mulde za zadrževanje vode

Grass through ditches

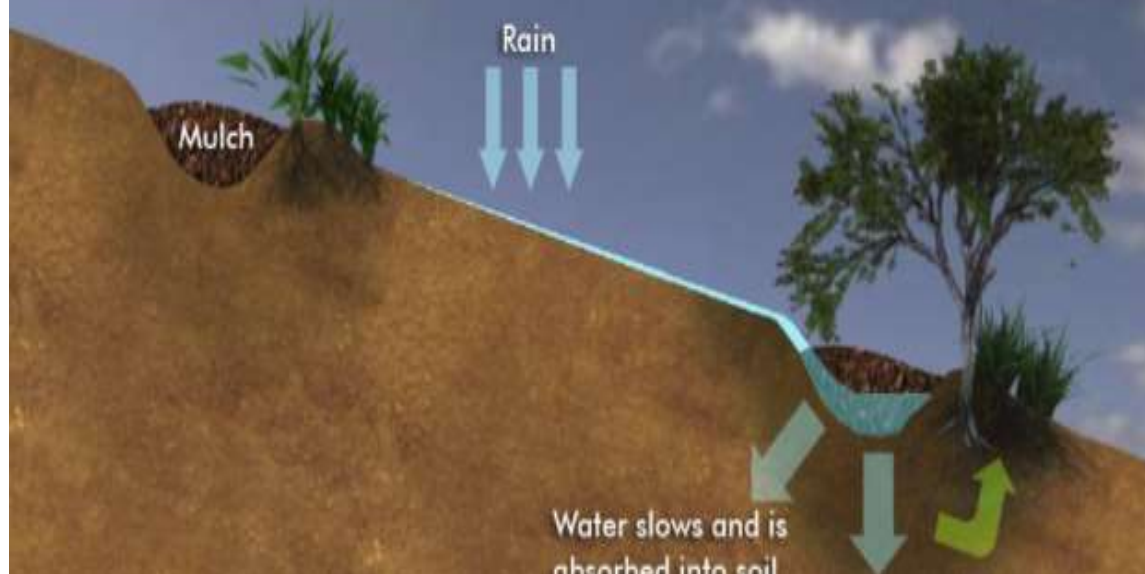


Na pobočju deževnica hitro odteče. Zato je potrebno izkopati jarke - travne mulde. V njih se zadrži padavinska voda in počasi odteka pod površjem po pobočju. Na tak način poteka naravno namakanje. Travne mulde ščitijo prst pred erozijo.

Rainfall quickly drains on slides. That is why we need ditches - grass through. They keep rainfall in it and slowly drain underground. That is how natural irrigation looks like. Grass through protect soil from erosion.



Swale Construction:



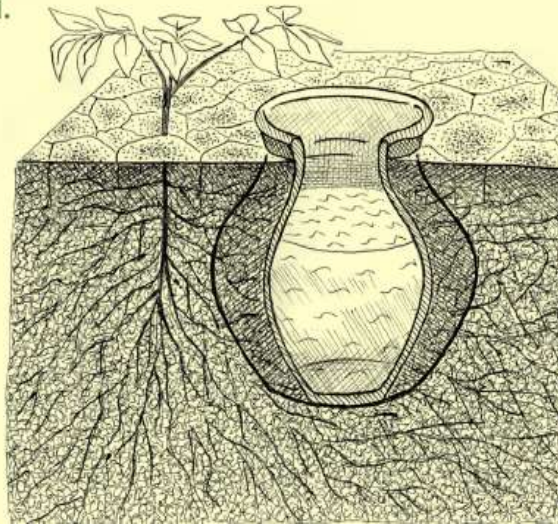
Glinene posode za zadrževanje vlage v prsti

Clay containers for soil water conservation



Rastline potrebujejo vodo za rast in razvoj. Pomembno je, da je voda na razpolago pri koreninah. Zato se uporabljajo glinene posode ali amfore, ki jih napolnimo z vodo in voda nato pronica iz sten posode glede na potrebe rastline. Tak način oskrbe rastlin z vodo je racionalen in prilagojen sušnim razmeram, saj voda površinsko ne izhlapi.

Plants need water for growing and development. It is important to have water on disposal by roots. Clay containers or amphoras are used for such purpose. They are filled with water and water seeps through the dish walls according to the plant needs. This way of water supply is rational and adapted to drought conditions, since the water does not evaporate.



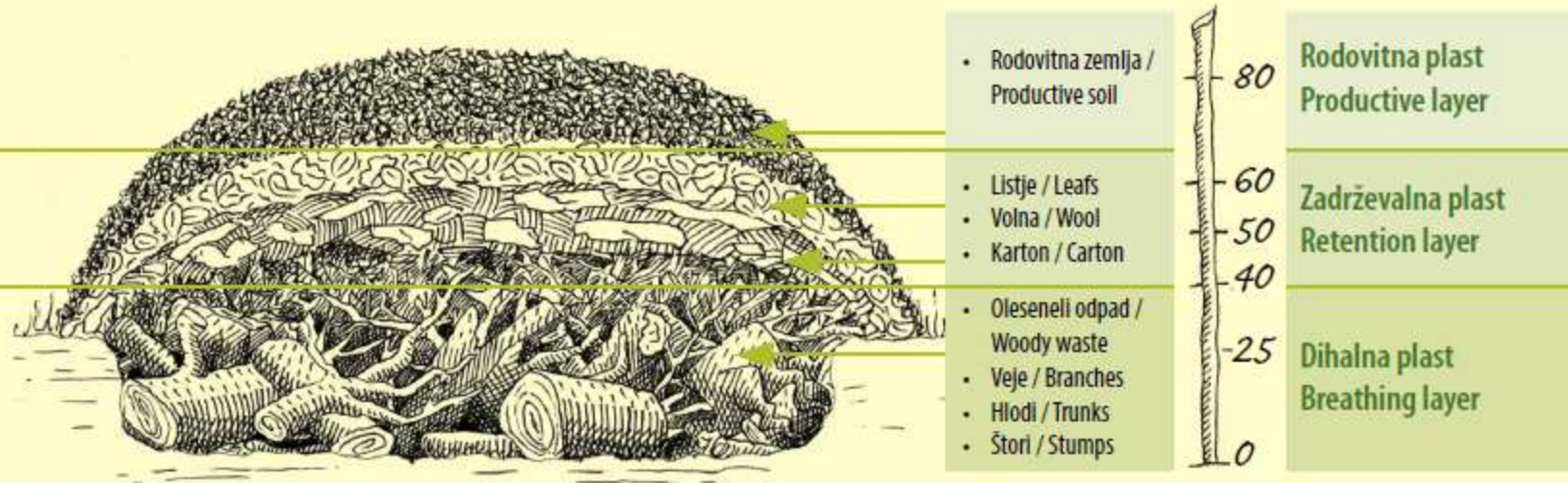
Gomilaste grede

Hugel beds



Gomilaste grede so vertikalni način pridelave tam, kjer je zemlja zbita, premokra ali presuha, izprana ali onesnažena.

Hugel beds are vertical ways of production, where the soil is not appropriate (beaten, to wet, to dry, washed out, polluted)

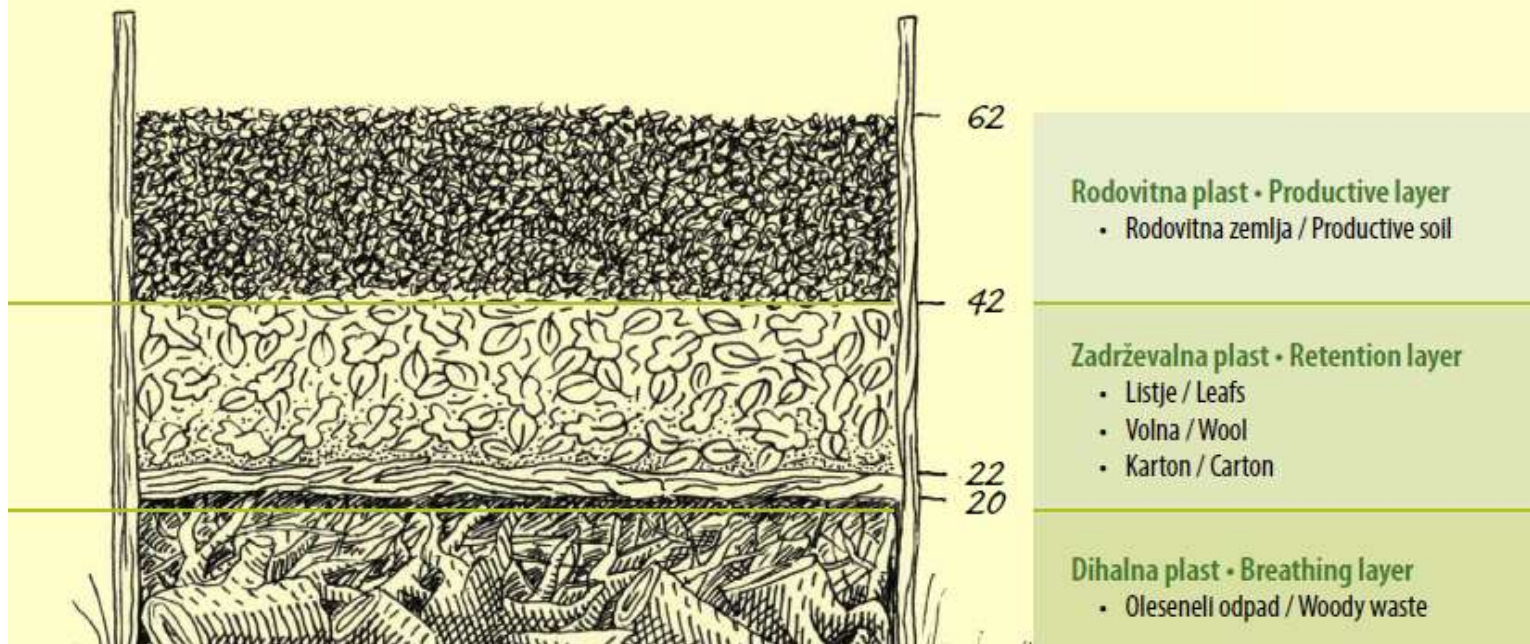


Visoke grede | High beds



Višina gred ni predpisana, lahko je od 20 cm do 80 cm. Postavimo jih lahko kjerkoli. Leseni okvir naj bo iz hrasta, akacije ali kostanja. Za notranjo izolacijo grede uporabimo paropropustno folijo, filc, gradbeno folijo ali les

The height is not recommended it can be between 20 - 80 cm. They can be placed anywhere. Wooden frame should be made of oak wood, acacia or chestnut. For internal isolation of bed we use water vapour permeable foil, felt, building isolation foil or wood.



Greda pogača – vrt brez prekopavanja

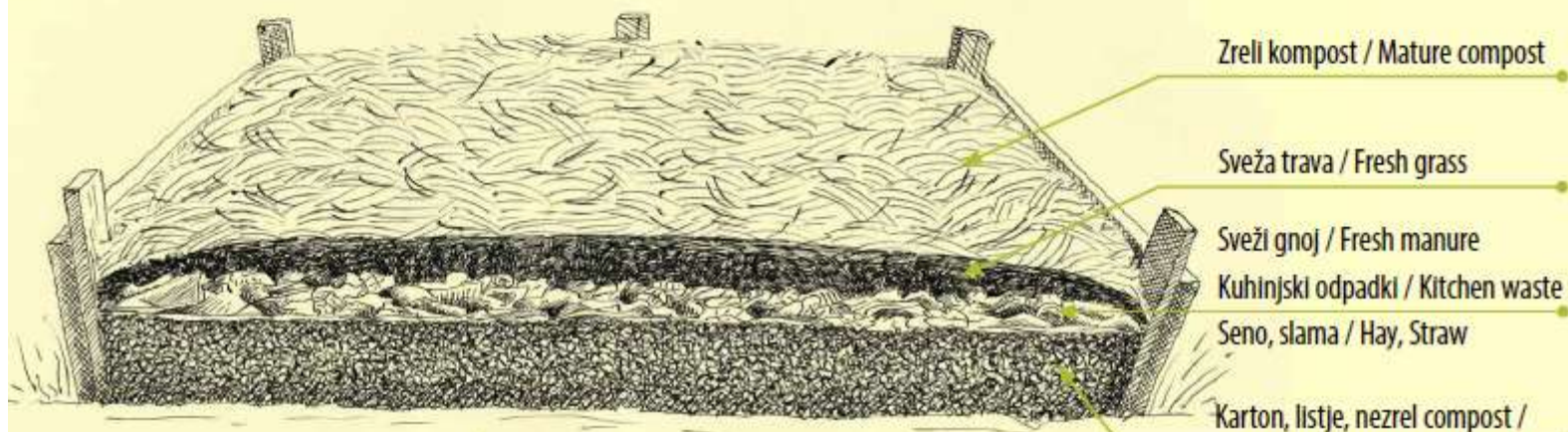
Cake bed- garden without digging



Na poljubno površino položimo plasti za zastiranje brez predhodnega prekopavanja.

Plasti nalagamo do saditve oz. setve, zgornja plast je vedno kompost. Na taki gredici najbolj rastejo rastline, ki rabijo veliko vode (paradižnik, paprika, buče, jajčevci, kumare), seveda pa lahko gojimo tudi vse ostalo.

On any surface we lay layer for weeding without previous digging. Layers are added until we seed or plant, upper layer is always compost. On such bed we usually grow plants that need a lot of water (tomato, pepper, pumpkins, eggplants, and cucumbers), of course other plants can be grown as well.



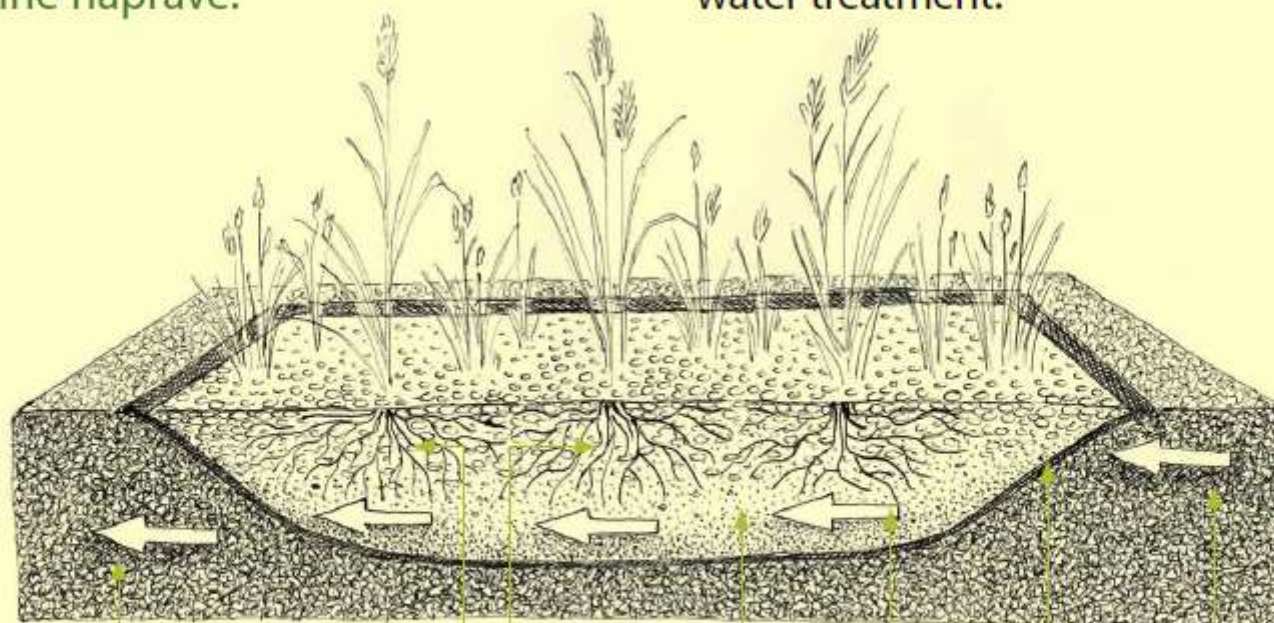
Peščeni filtri | Sand filters



Voda v pokrajini se čisti sama tako, da teče skozi prodnike in pesek. V njih se zadržijo trdni delci (voda se filtrira). Ko pa teče voda skozi drobni pesek in mivko, poteka fizikalno-kemijsko čiščenje.

Ta postopek posnemajo rastlinske čistilne naprave.

Water in the environment it cleans by itself, by flowing through gravel and sand. They keep the solids and so the water is cleaned (filters). When water flows through sand it gets cleaned physically and chemically. This procedure is repeated by the plant wastewater treatment.



Dotok prečiščene vode
Clean water exflow

Mešanica peskov
Mixture of sands

Folija
Foil

Cover the earth with straw – potatoes in hay and straw



Use of old textile and hay for insulation



Garden on old textile



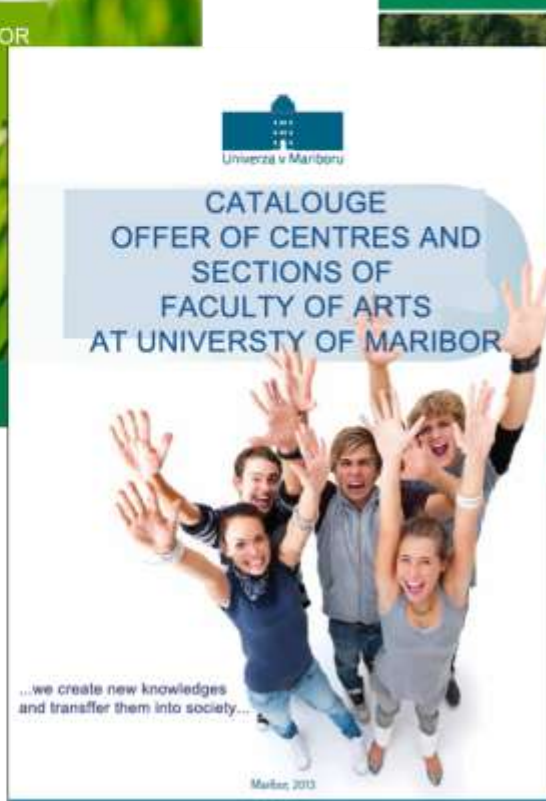
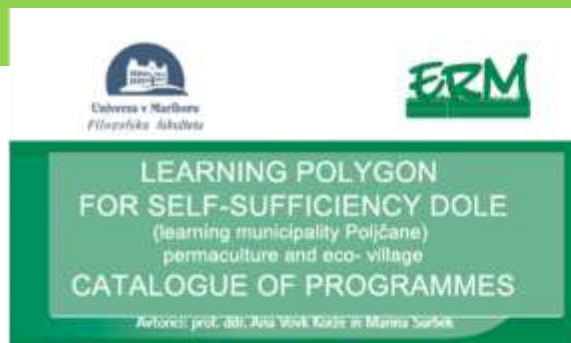
Garden on pallette



LEARNING BY DOING APPROACH



EDUCATIONAL PROGRAMMES FOR SELF-SUFFICIENCY



Agroecology

Agroekologija je interdisciplinarna znanost, praksa in gibanje in temelji na samooskrbi, prehranski, energetski in tehnološki suvernosti. To omogoča trajnost in blaginjo družbe, integracijo mladih ter ranljivih družbenih skupin in zdravje ter kreativnost družbe kot celote. Znanja prehaja preko prakse v način življenja ljudi.

Agroecology is interdisciplinary science, practice and movement and is based on self-sufficiency, food, energy and technological sovereignty. This enables sustainability and society prosperity, young people and vulnerable societies integration, health and creativity of society as whole. Knowledge transfers through practice into human life.

