

Greywater

5 Typologies: Greywater for all scales

Goal: To demonstrate uses of greywater within a variety of urban forms



RURAL_INDIVIDUAL

Greywater intervention: A singular process; exiting the building and immediately entering the natural habitat.

- Pros:
- Applications of tested methods existing today.
 - Requires minimal piping to allow water to exit house and surrounding areas.
 - Requires little maintenance.
 - Surrounding natural habitat will reap benefit of water supply.
 - Adaptable to changes of urbanization

- Cons:
- Physical disconnect from community.
 - Maintenance work must be conducted by individual owners.

SUBURBAN_COMMUNITIES

Greywater intervention: Greywater from individual residences is used for communal green spaces; i.e. community lawns, golf courses and natural habitats.

- Pros:
- Tested method applied to communities.
 - Requires little piping and maintenance.
 - Community benefits from green spaces and gathering places.
 - Promotes communal ownership and care for surrounding habitat.
 - Surrounding natural habitat will reap benefit of water supply.

- Cons:
- Maintenance must be negotiated between private ownership and community.
 - Community ownership and penalties for overuse of water.
 - Less adaptable to changes in urban form.

HILLSIDE_TOWNS

Greywater intervention: Due to its sloping nature and density, energy consumption can be reduced by using gravity to move the greywater.

- Pros:
- Energy consumptions for greywater movement are low.
 - Community benefits from green spaces and gathering places.
 - Demonstrates communal patterns of water usage and collective ecological footprint.
 - Promotes communal ownership and care for surrounding habitat.
 - Maintenance to be taken care of by township.
 - Surrounding natural habitat will reap benefit of water supply.

- Cons:
- More manufactured methods of water circulation.
 - Requires maintenance to ensure sanitation levels prior to contact with public.
 - Community ownership and penalties for overuse of water.
 - Difficulty adapting to changes in urban form.

URBAN_COMMUNITIES

Greywater intervention: High density and building forms allow for use of greywater for semi-private spaces; i.e. roof gardens and central courtyards.

- Pros:
- Tested method applied to urban form at a community level.
 - Provides amenities of healthy lifestyles, i.e. fresh air, green spaces within urban context.
 - Reduces energy waste by maintaining cooler building temperatures.
 - Promotes communal ownership and care for green spaces.
 - Demonstrates communal patterns of water usage and collective ecological footprint.
 - May lead to ecologically competitive districts further benefiting the environment.

- Cons:
- Piping required; greywater use is supplementary to larger system.
 - Maintenance must be negotiated between private ownership and community.
 - Community ownership and penalties for overuse of water.
 - Difficulty adapting to changes in urban form.

URBAN_PUBLIC SPACES

Greywater intervention: Used in public spaces to enhance our living environments before ultimately nourishing the natural habitat.

- Pros:
- Communities and general public benefit from green spaces and gathering places within an urban setting.
 - Provides amenities of healthy lifestyles, i.e. fresh air.
 - Promotes communal ownership and care for green spaces.
 - Maintenance taken care of by the city.
 - Demonstrates communal patterns of water usage and collective ecological footprint.

- Cons:
- Requires maintenance to ensure sanitation levels prior to contact with public.
 - Some piping required to incorporate greywater into urban designs prior to reaching natural habitat.
 - Difficulty adapting to changes in urban form.

