

SCHOON SCHIP

SCHOONSCHIP IS A PROTOTYPICAL RESILIENT CITY NEIGHBORHOOD CO-DEVELOPED BY SPACE AND MATTER. CONSISTING OF 46 FLOATING HOUSEHOLDS, IT PUSHES THE CURRENT BOUNDARIES OF CIRCULARITY, COMMUNITY GOVERNANCE AND RESILIENT URBAN DEVELOPMENT. THE COMMUNITY WILL SHARE A BLOCKCHAIN-BASED SMART-GRID THROUGH WHICH THEY CAN TRADE SOLAR ENERGY.

EACH FLOATING VILLA PLUGS INTO A CENTRAL JETTY WHICH CONTAINS THE TECHNICAL INFRASTRUCTURE, CREATING A SMART NETWORK OF DWELLINGS (SEE PAGE 2).

BY ORIGIN, SPACE AND MATTER IS AN ARCHITECTURE OFFICE, BUT WE DO MUCH MORE THAN JUST DESIGNING BUILDINGS...

EVERYTHING WE DO IS ALWAYS FOCUSED ON IMPROVING THE BUILT ENVIRONMENT AND PROMOTING A COHESIVE SOCIETY.



space & matter

A GROUP OF AROUND 140 LIKE-MINDED PEOPLE ORGANIZED THEMSELVES AND CREATED THE MOST SUSTAINABLE NEIGHBORHOOD IN THE WORLD

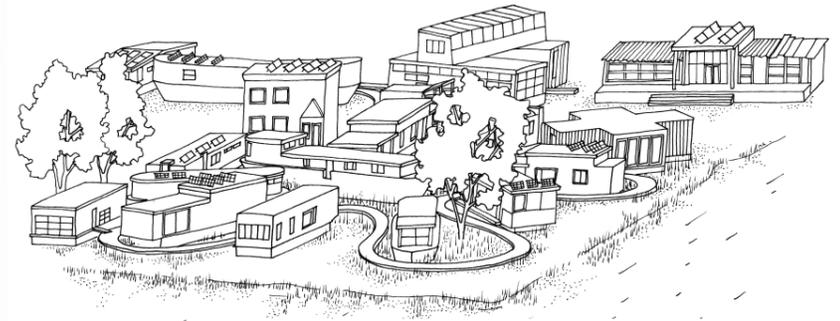


COMMUNITY

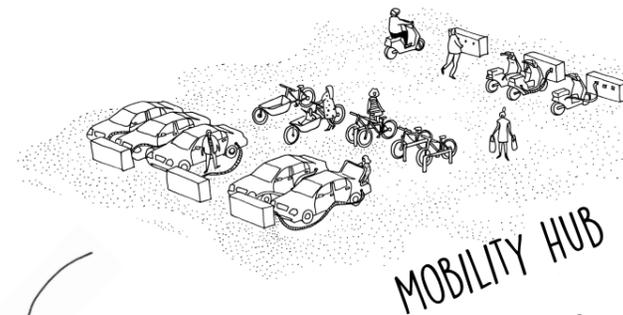


IN 2013, SPACESMATTER TRANSFORMED A POLLUTED POST-INDUSTRIAL WASTELAND INTO A CREATIVE ECO-HUB. DE CEUVEL HOSTS SIXTEEN DISCARDED HOUSEBOATS, RETROFITTED TO OFFER WORKSPACE TO CREATIVE AND CLEANTECH ENTERPRISES. SURROUNDING THE WORKSPACES THERE IS A LUSH GARDEN OF PLANTS, SELECTED FOR THEIR SOIL-CLEANING (PHYTOREMEDIATION) PROPERTIES.

DE CEUVEL



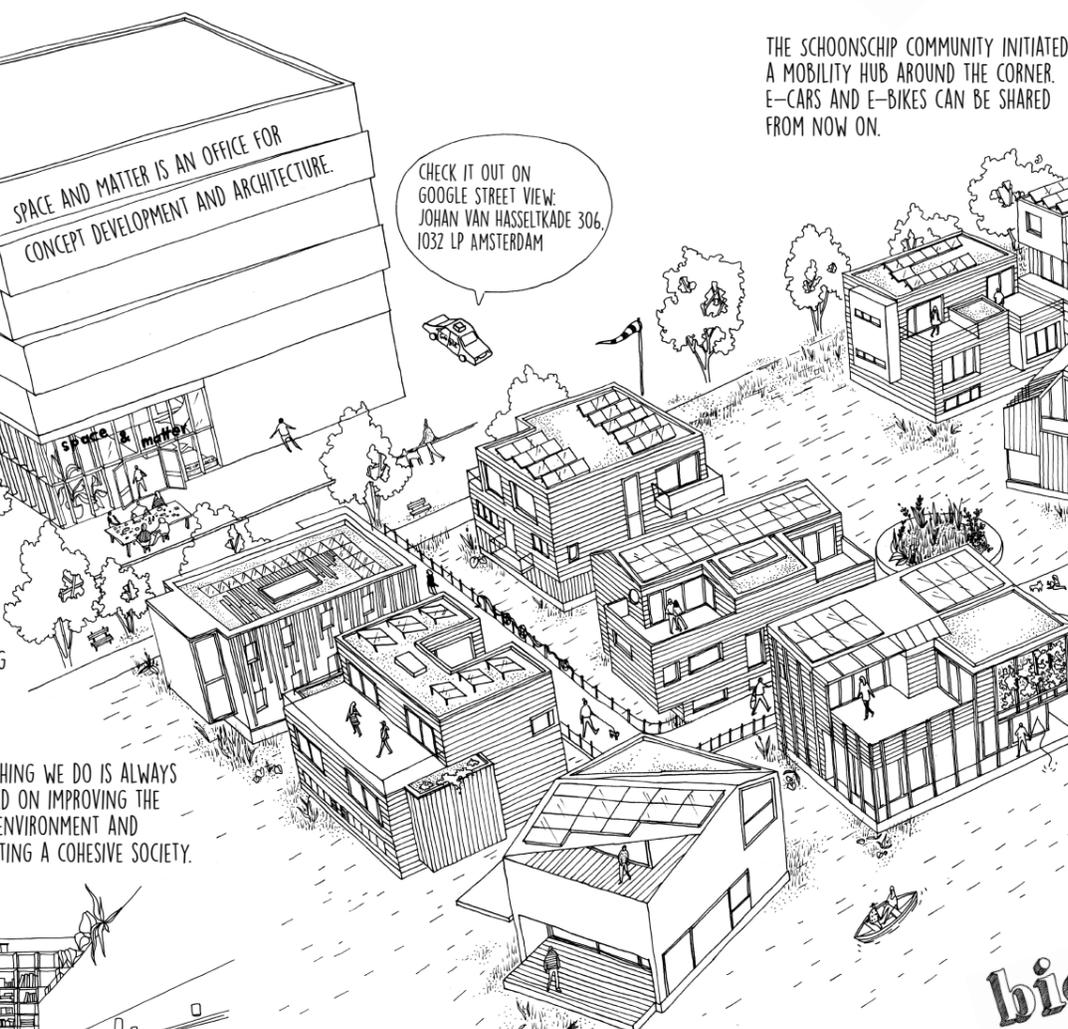
DE CEUVEL SERVED AS PERFECT PLAYGROUND FOR ALL CIRCULAR INNOVATIONS. ALL LESSONS LEARNED ABOUT CIRCULARITY AND RESILIENT URBAN DEVELOPMENT BECAME PART OF SCHOONSCHIP.



MOBILITY HUB

THE SCHOONSCHIP COMMUNITY INITIATED A MOBILITY HUB AROUND THE CORNER. E-CARS AND E-BIKES CAN BE SHARED FROM NOW ON.

CHECK IT OUT ON GOOGLE STREET VIEW: JOHAN VAN HASSELTKADE 306, 1032 LP AMSTERDAM

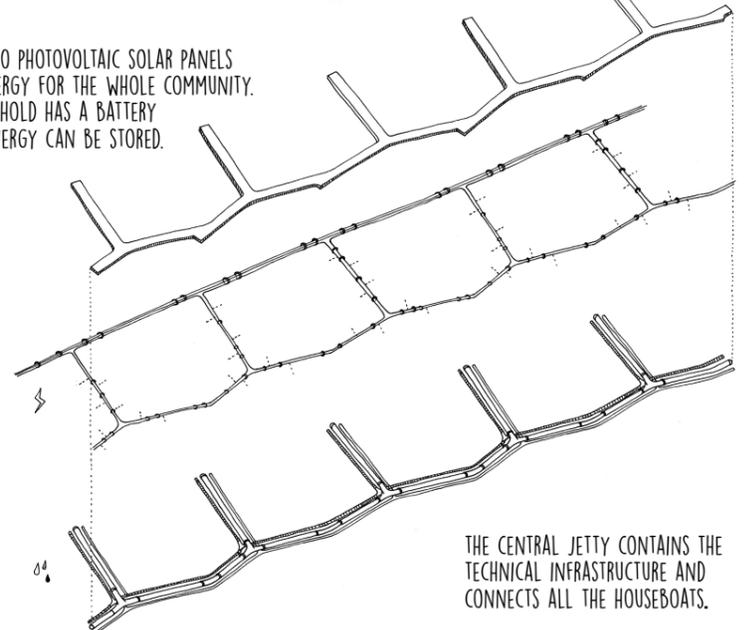


ALL HOUSE BOATS ARE CONNECTED TO A COMMUNAL SMART GRID. THIS SMART GRID MAKES POSSIBLE TO TRADE ENERGY EFFICIENTLY AMONGST THE HOUSEHOLDS.

SMART JETTY

SMART GRID

IN TOTAL 500 PHOTOVOLTAIC SOLAR PANELS PRODUCE ENERGY FOR THE WHOLE COMMUNITY. EVERY HOUSEHOLD HAS A BATTERY IN WHICH ENERGY CAN BE STORED.

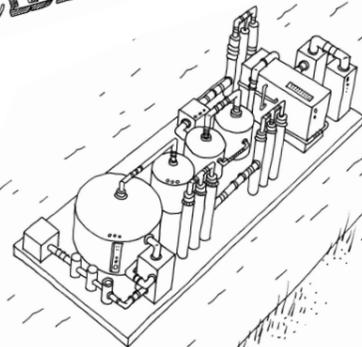


SMART GRID
WATER SYSTEM SEWAGE

THE CENTRAL JETTY CONTAINS THE TECHNICAL INFRASTRUCTURE AND CONNECTS ALL THE HOUSEBOATS.

A SMALL SCALE TREATMENT UNIT IN WHICH RAW MATERIALS (NUTRIENTS SUCH AS PHOSPHATE) AND ENERGY (BIOGAS) CAN BE RECOVERED FROM BLACK WASTE WATER (WASTE WATER COMING FROM TOILETS AND POSSIBLY FOOD GRINDERS).

biorefinery



IN 2010 THE INITIATORS OF SCHOONSCHIP APPROACHED US TO HELP THEM REALIZING THEIR DREAM: BUILDING THE MOST SUSTAINABLE (FLOATING) NEIGHBORHOOD IN THE WORLD! IN SEVERAL WORKSHOPS WE COLLABORATIVELY DESIGNED AN 'OPEN' URBAN PLAN WITH A SUPER AMBITIOUS SUSTAINABILITY CONCEPT. WITH THE SCHOONSCHIP COMMUNITY WE MANAGED TO FIND A PLOT OF WATER TO REALIZE THE NEIGHBORHOOD. AFTER EIGHT YEARS OF DREAMING, DRAWING, PERMITS AND PLANNING WE WELCOMED THE FIRST FLOATING HOUSES IN DECEMBER 2018.

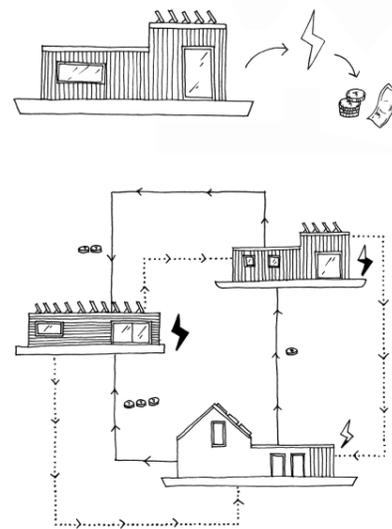
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ENERGY FLOW

REAL-TIME POWER-FLOW MAP OF THE COMMUNITY, HIGH-RESOLUTION DATA VISUALIZATIONS, AND MACHINE-LEARNING FORECASTING SYSTEMS

THE EXCHANGE OF ENERGY WILL BE PAID IN JOULIETTES: A LOCAL CURRENCY THAT IS FULLY DIGITAL, ONLINE, AND ENERGY-BASED.

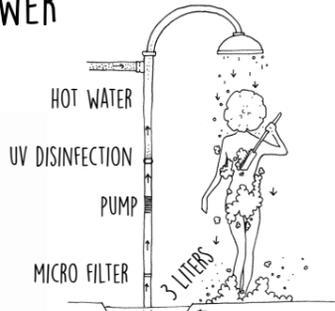


THE SMART GRID USES DIGITAL TECHNOLOGY BY COLLECTING AND SHARING DATA FOR IMPROVED EFFICIENCY, RELIABILITY, RESILIENCY AND FLEXIBILITY.

SMART GRID

THE JETTY CONNECTING THE INDIVIDUAL HOUSEBOATS SERVES AS COMMUNAL SPACE.

RECIRCULATION SHOWER



DUE TO THE UPCYCLE SYSTEM, THE USED WATER IS COLLECTED, FILTERED, HEATED AND REUSED.

BUY FOOD AT DE CEUVEL

RENT AN ELECTRIC CAR

THE ELECTRICITY THAT THE INHABITANTS OF SCHOONSCHIP WILL GENERATE WITH THE SOLAR PANELS FLOWS INTO THE SMART GRID, TO BE USED IN WHICHEVER HOUSEHOLD NEEDS IT AT THAT MOMENT.

smart jetty

GREY WATER AND BLACK WATER WILL BE SEPARATED. THE BIO-REFINERY FERMENTS AND TRANSFORMS IT INTO ENERGY.



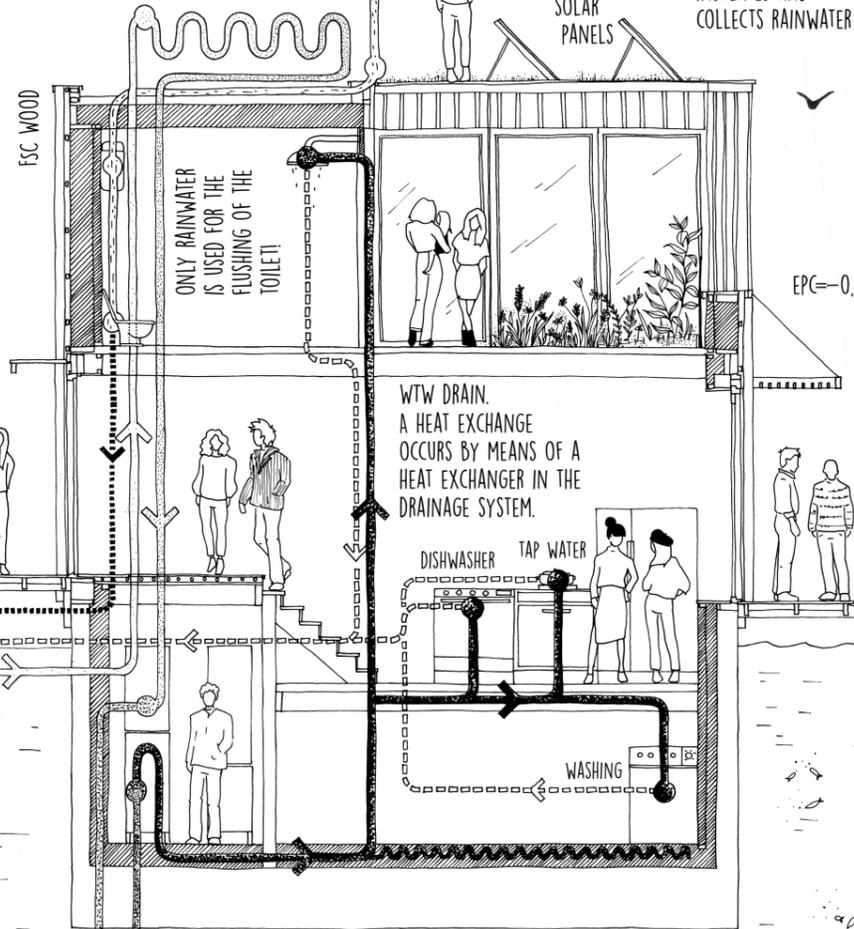
boat

SUN BOILER

THE WATER IS PRE-HEATED BY THE SUN BY CIRCULATING WATER THROUGH SOLAR COLLECTORS

GREEN ROOFS

GREEN ROOF (SEDUM) INSULATES AND COLLECTS RAINWATER



ONLY RAINWATER IS USED FOR THE FLUSHING OF THE TOILET

WTW DRAIN. A HEAT EXCHANGE OCCURS BY MEANS OF A HEAT EXCHANGER IN THE DRAINAGE SYSTEM.

HEAT ENERGY RECOVERY SYSTEM

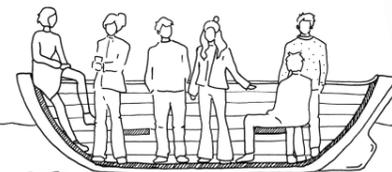
THE HEAT ENERGY RECOVERY SYSTEM WITH ITS COMPACT, HIGHLY EFFICIENT HEAT EXCHANGER TURNS THE HEAT CONTAINED IN THE WATER INTO HEATING ENERGY

floating gardens

ALL HOMES WILL HAVE A GREEN ROOF COVERING AT LEAST ONE THIRD OF THE ROOF'S SURFACE.

biodiversity

HERBAL GARDENS

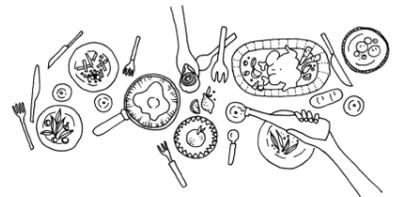


ELECTRIC BOATS WILL BE CONNECTED TO THE SMARTGRID.

WASTE WATER SYSTEM

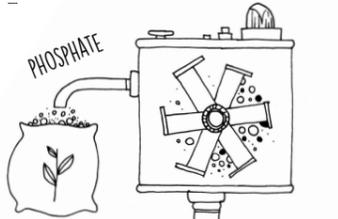
WASTE WATER CARRIES RAW MATERIALS LIKE PLANT NUTRIENTS AND ENERGY (HEAT AND BIOGAS). MOST OF THESE ARE LOST IN OUR CURRENT WASTE WATER SYSTEMS.

IN THE BUIKSLOTERHAM AREA A SEPARATED WASTE WATER SYSTEM (CALLED 'NEW SANITATION') WILL BE IMPLEMENTED: BIOGAS, ESSENTIAL MINERALS LIKE PHOSPHATE, AND LOW-TEMPERATURE HEAT WILL BE RECOVERED IN THE BIREFINERY.



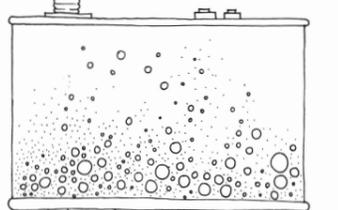
FOOD COOP

THE COMMUNAL PURCHASE OF FOOD WILL MINIMIZE REFUSE AND TRANSPORTATION, AND WILL SUPPORT LOCAL ORGANIC FARMERS.



PHOSPHATE

THE NEW SANITATION SYSTEM IS MUCH MORE ENERGY-EFFICIENT THAN TRADITIONAL WASTE WATER TREATMENT SYSTEMS. IT BENEFITS A CIRCULAR ECONOMY: DECENTRALIZED, CIRCULAR AND WATER SAVING.



THANK YOU!

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WANTS TO THANK EVERYONE WHO HELPED TO MAKE THIS DREAM PROJECT COMING TRUE
STICHTING SCHOONSCHIP AND OUR COLLABORATOR: GEMEENTE AMSTERDAM, BARTELSVEDDER, LBP SIGHT, METABOLIC, SPECTRAL, SWART, TREE DELFT, TRIODOS, WATERLOFT.