



ECOCITY 3

New beginning for uprooted and persecuted individuals

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INTRODUCTION

- ✘ Follow up of GP camp 2014 & 2015 presentations
- ✘ → Start with building: small education and vacation center with a new way of building technology, which is ecologic, cost effective, healthy and easy to make.
- ✘ Two Purposes:
 - + Prototype camp and education building to teach, demonstrate and multiply ideally suited method for comfortable building in arid regions.
 - + Retreat, recreation and vacation location with about 15 double rooms for 30 people.
- ✘ Large 4-5m high center room with kitchen, double rooms with bath centered around plus some workshop sheds.

ACHIEVEMENTS AFTER 2015

- ✘ Partners and construction land in Negev for prototype searched and found: http://makman-dunes.awardspace.com/?page_id=29
- ✘ Diffusion-open stone formula with local material created and successfully tested onsite.
- ✘ Construction details and on-place stone forming mechanism refined.
- ✘ Found other lands (right): 2000 m² from \$25'000..
- ✘ Found new partners...



• .HOLOCAUST SURVIVORS

- ✘ Holocaust Survivors Association
- ✘ As Building is only used certain times of year, it's ideally suited to give a beautiful vacation place and glimpse into future for remaining Holocaust Survivors.
- ✘ Planting future seeds towards joyful and sustainable life in the Negev, when remaining 'Sepharads' will reach their final destination.



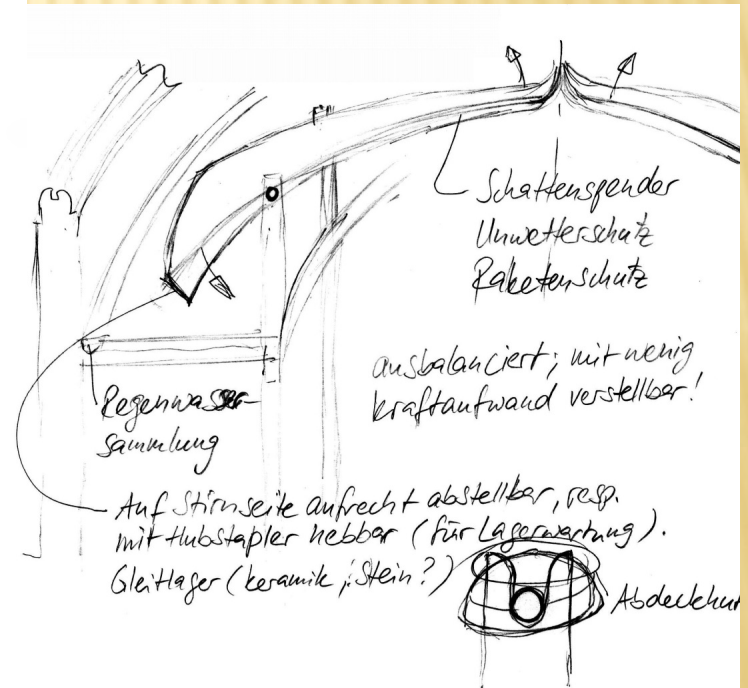
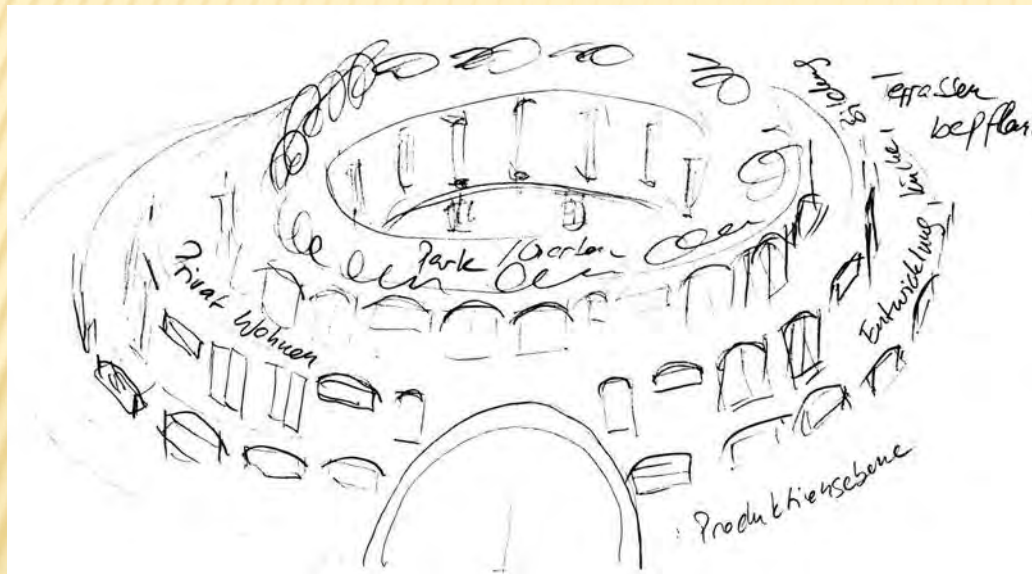
DEVELOPING NEGEV – WHY?

× WHY?

- + Negev will need alternative building solutions to absorb Millions of returnees / refugees / survivors which will be settling there in the future due to Antisemitism rising worldwide.
- + Ben Gurion's vision
- + Focus of current government
- + Obadja-Prophecy:
“The exiles of Jerusalem who are in Sepharad shall possess the cities of the Negev.”

CONSTRUCTION – CITY IN THE DESERT

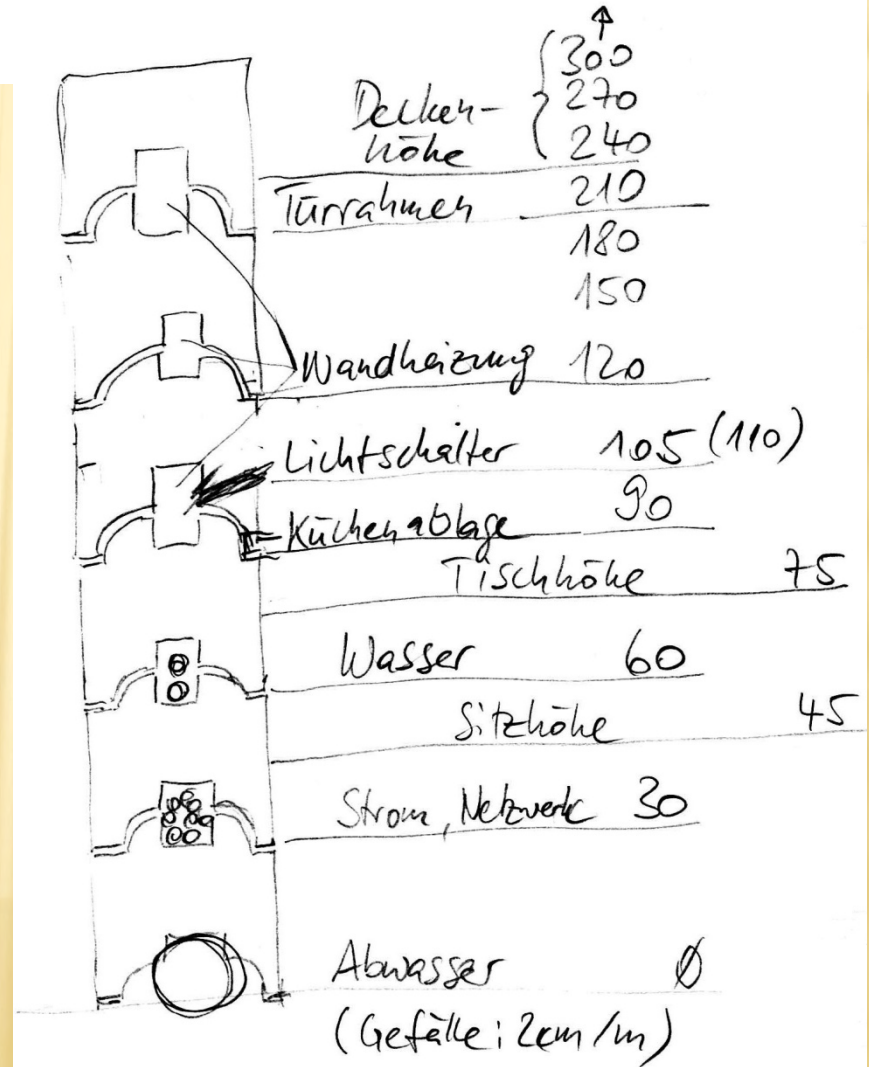
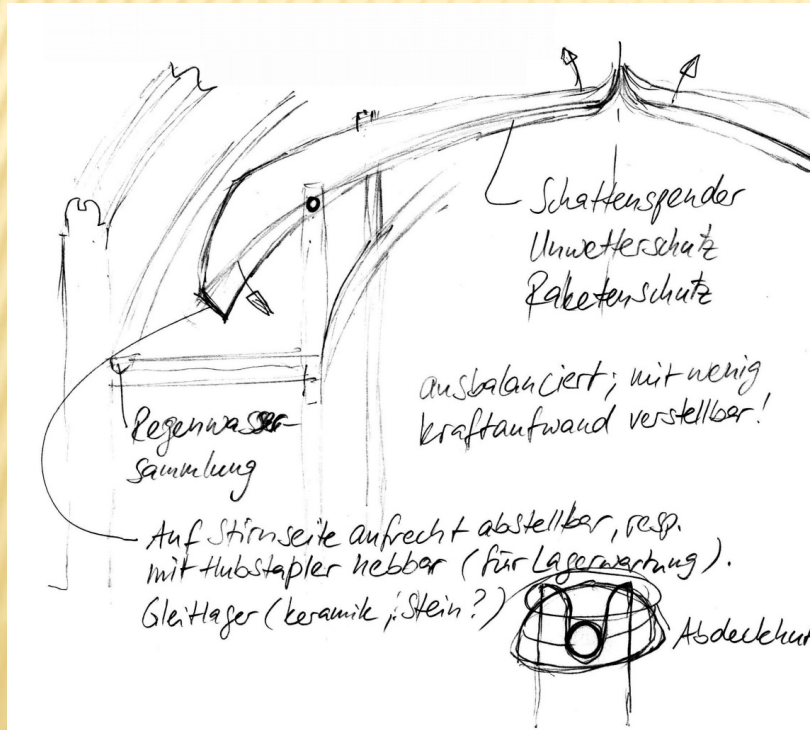
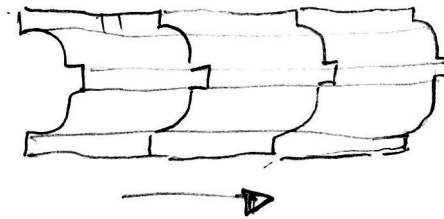
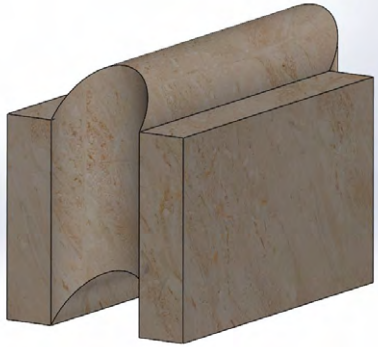
✘ Living & Working at same place!



ARCHITECTURE

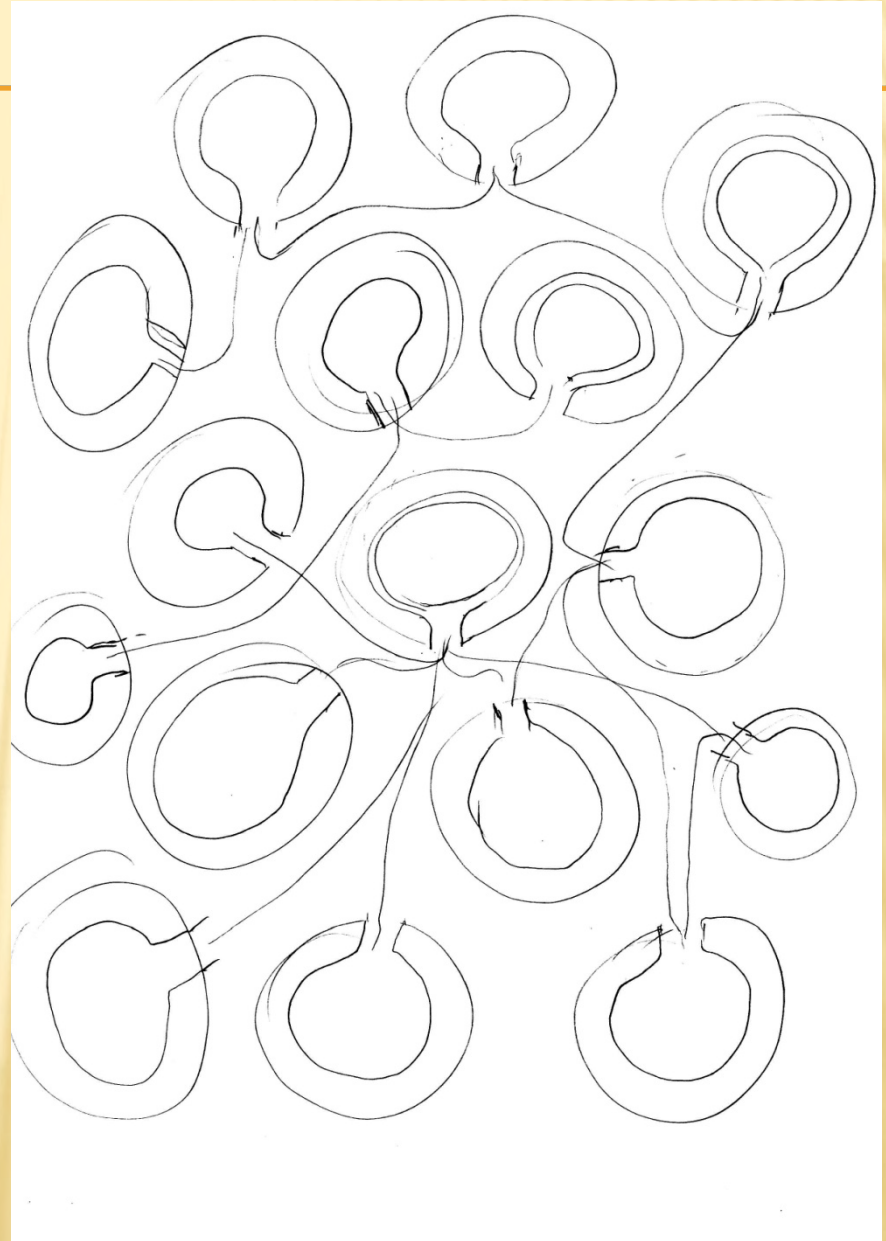
- ✘ To achieve a unique, energy efficient and exemplary architecture for the future of the Negev, highly professional advice should be incorporated.
- ✘ Natural buildings are more round shaped while traditional buildings are squared. There are arguments for both, which need to be discussed through.
- ✘ When this model project will become reality it is proposed to request famous Swiss-Italian jewish architect Mario Botta. With his unique architecture he is a master in combining round and rectangular shapes into unique, sensitive and regionally adapted buildings, well suited for their requested purpose including multiplication.

BUILDING BLOCKS



MULTIPLY

- ✘ Need to build economy
- ✘ An Ecocity is more a community than a city, therefore
- ✘ Network of cooperatives – Food, Builder's, Medical, Farmer's cell, etc...



MATERIALS ONSITE

- ✘ **To prepare future and let people start with minimal debt, most materials should be local:**
 - + Caolinitic clay - almost free 'waste' from washing sand in local quarries
 - + Lime stone (often on site)
 - + Natron / (Ash)
 - + Sahara sand (on site)
 - + Magnesium from Death Sea salt
 - + (Fly ash - probably limited, as power stations are slowly converting to natural gas)
 - + **How is it made?** Watch pyramid building:
<https://www.geopolymer.org/dl/?get=pyramid-eng.mp4>

PROTOTYPE CAMP BUDGET

- ✘ Building size will be either
 - + Small: 260m² (650m³), rooms 12m² + bath 3m²
 - + Medium: 400m² (1050m³), rooms 16m² + bath 4m²
 - + Luxury: 480m² (1320m³), rooms 20m² + bath 4m²
- ✘ Roughly estimated prototype building cost per m³:
 - + \$200/m³ - slow: voluntary helpers only
 - + \$400/m³ - medium speed: volunteers & professionals
 - + from \$600/m³ - fast: professionals
- ✘ Which results in construction cost between \$130k (small & slow) / \$420k (medium) / \$800k (large & fast)
- ✘ Plus \$50k Geopolymer-Recipe-Enhancing (consulting)
- ✘ Plus \$50-100k pressing machine prototype with molds
- ✘ Plus land cost & permissions
- ✘ Total budget from \$250k (with volunteers and no star architect..)

CONTINUATION

✘ Personal priorities:

- + Almost finished 800m² (8000sqft) plus-energy-certified and ecologically built Swiss house and base-camp built inside old army store house by ourselves
- + Now starting to build biomass power-station and indoor fish- and aquaponics production to create further project funding.
- + This project and/or donators hopefully will set us free to continue with the EcoCity project soon.



ECOCITY – NEXT STEPS

- ✘ Prototype shall present a most professional model, ready to be copied easily, therefore **best professional advice is required**:
 - + **Refining local stone recipe** – try to involve Prof. Davidovits as consultant (50k)
 - + **Refining architecture** – try to involve intl. award winning Swiss-jewish architect Mario Botta (botta.ch) for intuitive design of prototype involving unique standard elements (100k)
 - + Employ mechanical engineer to build already conceptualized prototype of **hydraulic onsite stone press** (100k)
 - + **Select final place and prepare for building**
- ✘ Who would like to join may contact me by email wm@mix.ch or phone +41337830331