

# HIGH-TEMPERATURE RESISTANT GEOPOLYMER PIZZA OVEN

Jason Learned

Geopolymer Camp 2015

I HAD A LOT OF DREAMS  
IN MY LIFE....



...see Dakota Badlands

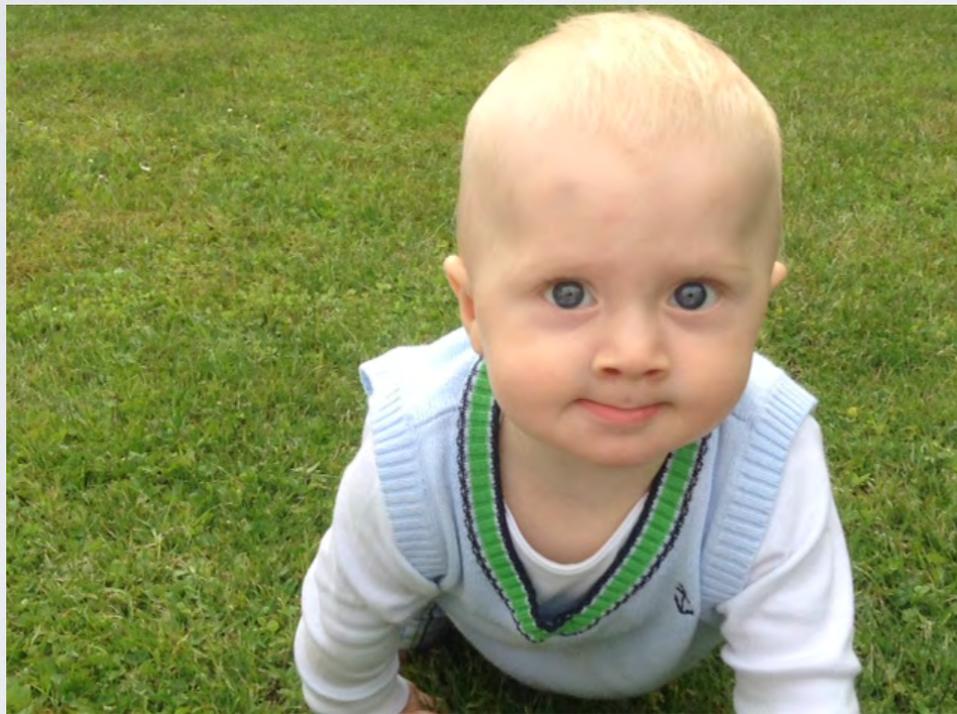


I HAD A LOT OF DREAMS  
IN MY LIFE....



...be surrounded by beautiful women

# I HAD A LOT OF DREAMS IN MY LIFE....



...have son



I HAD A LOT OF DREAMS  
IN MY LIFE....



...build pizza oven

AND I STILL HAVE THEM  
AND MAKE THEM HAPPEN



# AND I STILL HAVE THEM AND MAKE THEM HAPPEN

- I wanted to build more interesting and multifunctional pizza oven than the standard shown here



# OVEN REQUIREMENTS

- more than one way to heat the pizza oven
- utilisation of the smoke
- built in fireplace
- lighting
- long term cooking

# WHY GEOPOLYMER?

- ease of use
- space requirements
- durability
- heat resistance
- density

# BUILDING PROCESS

- České lupkové závody a. s.
  - Baucis L 160 combined with KOH and water glass
- high silica sand (1/2 fine, 1/2 coarse)

# BUILDING PROCESS



- forms are painted with wax and sealed for one week

# BUILDING PROCESS



- firebrick and insulation are separated from geopolymer with cling film
- brick base has sand foundation

# BUILDING PROCESS



- walls and door are geopolymer
- vault is firebrick for replacability

# BUILDING PROCESS



- unmolded with electrical conduit installed
- thermal mass cap in place

# BUILDING PROCESS



- aluminum insulation layer
- tall form required extra bracing

# BUILDING PROCESS



- outer surround form
- putting in rockwool and perlite insulation

# BUILDING PROCESS



- ready for steel

# BUILDING PROCESS



- welding flue and base

# BUILDING PROCESS



- test firing
- after diamond sanding

# COOKING



- pizza with coals
- roast beef in cleaned oven

# IMPROVEMENTS



- precasting internal pizza oven bricks that fit together like LEGO's
- replacable plug directly above rocket stove
- wider hood

# QUESTIONS?



THANK YOU!

