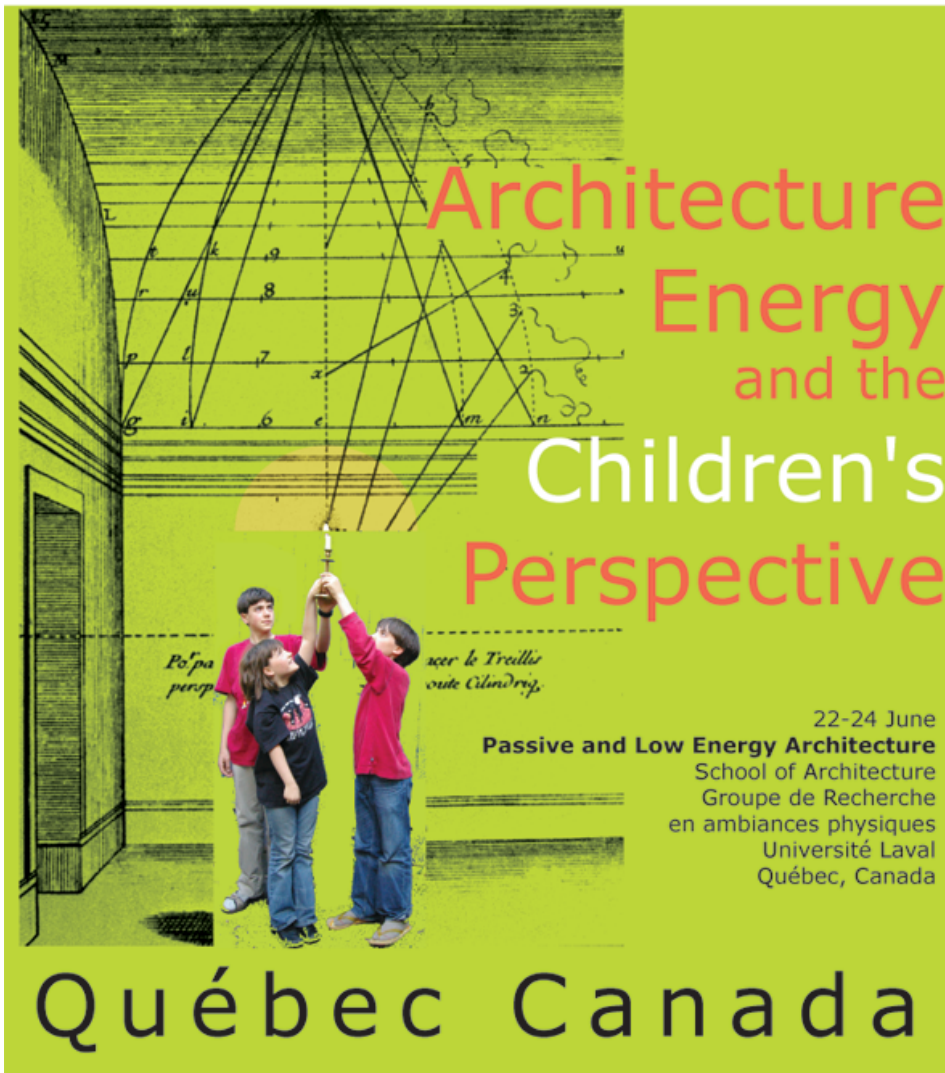


junior PLEA 2009



Gala Dinner, Château Frontenac
Québec, 23 June 2009
Oral Presentation

Alexandre Demers-Potvin

14 years old, English version

Charles Demers-Potvin

12 years old, technical support

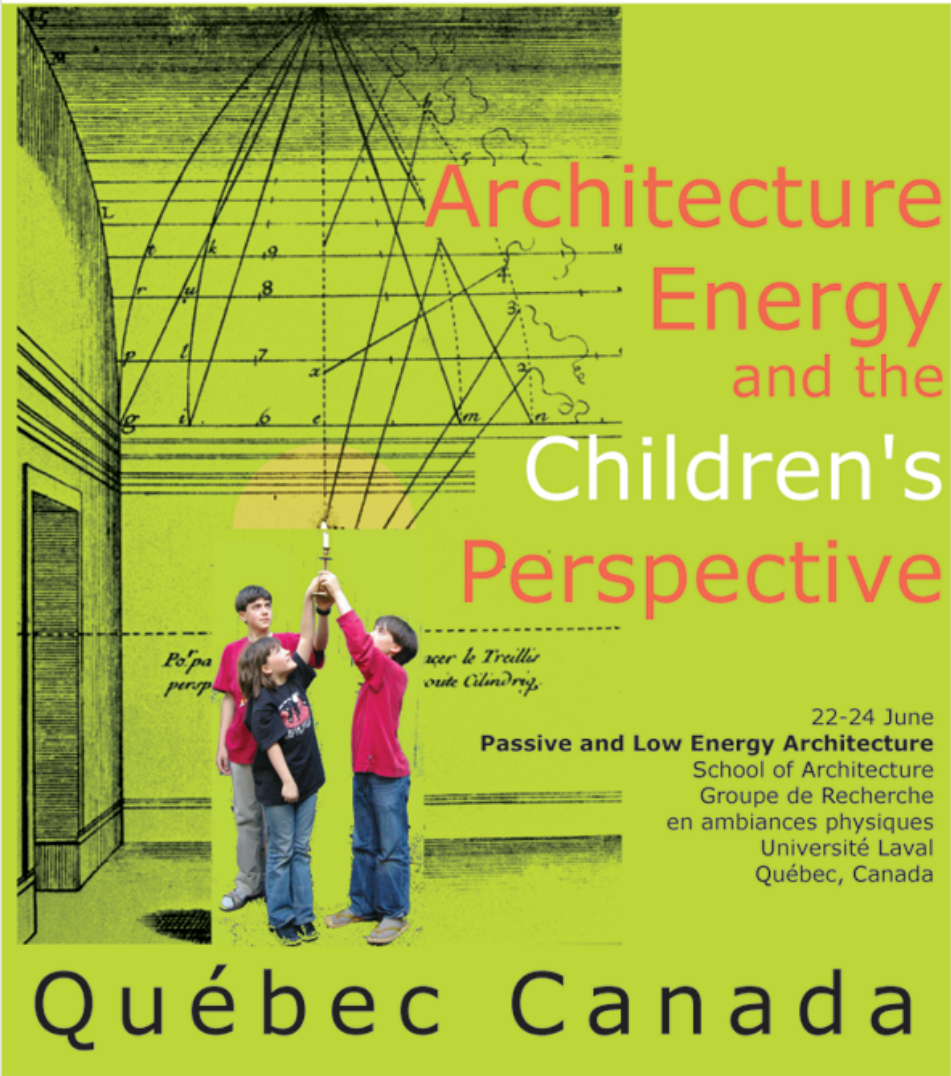
Elisabeth Demers-Potvin

9 years old, French translation

Yasser Bennadji

6 years old, active participant

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**Architecture
Energy
and the
Children's
Perspective**

*Po'pa
persp* *avec le Treillis
oute Cilindrop*

22-24 June
Passive and Low Energy Architecture
School of Architecture
Groupe de Recherche
en ambiances physiques
Université Laval
Québec, Canada

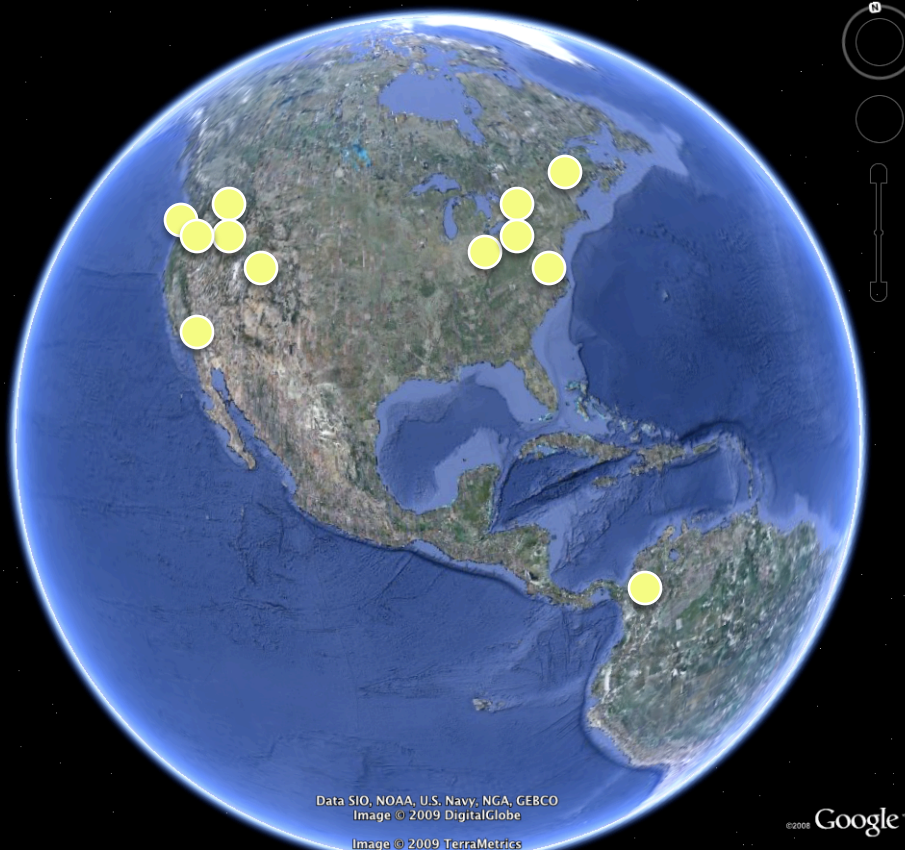
Québec Canada



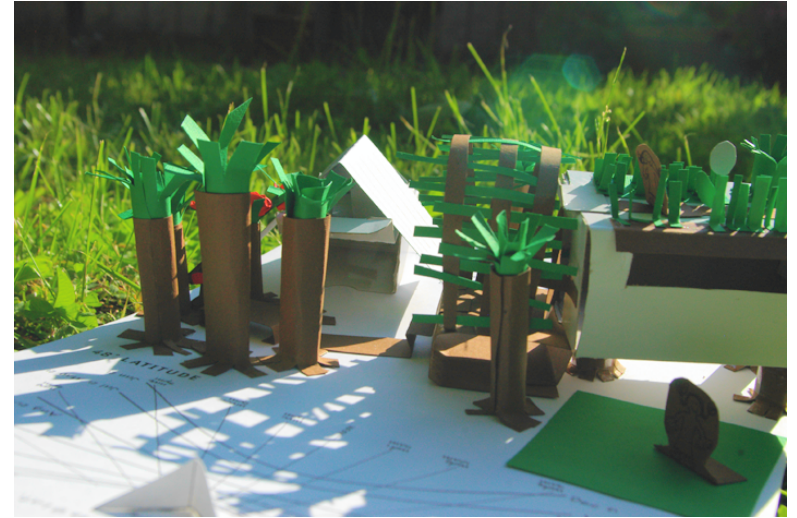
Hmm, this
looks
rather
interesting...

Origin of participants

Aberdeen, Scotland, UK	57° 9' N
Lyngby, Denmark	55° 46' N
Quebec City, Quebec, Canada	46° 48' N
Moscow, Idaho, USA	46° 44' N
Portland, Oregon, USA	45° 31' N
Eugene, Oregon, USA	44° 7' N
Toronto, Ontario, Canada	43° 40' N
Boise, Idaho, USA	43° 36' N
Pittsburgh, Pennsylvania, USA	40° 27' N
Columbus, Ohio, USA	40° 0' N
Msida, Malta	35° 53' N
Santa Monica, California, USA	34° 1' N
Envigado, Colombia	6° 10' N



Three Scales of Human Activity



•Site

•Outdoor party for André and Claude:
outdoor comfort strategies

•Architecture

•LIGHT: A skylight for Claude's workshop:
daylighting strategies

•Detail / Hand

•HEAT, A solar oven for André' outdoor
picnics: passive heating and active eating



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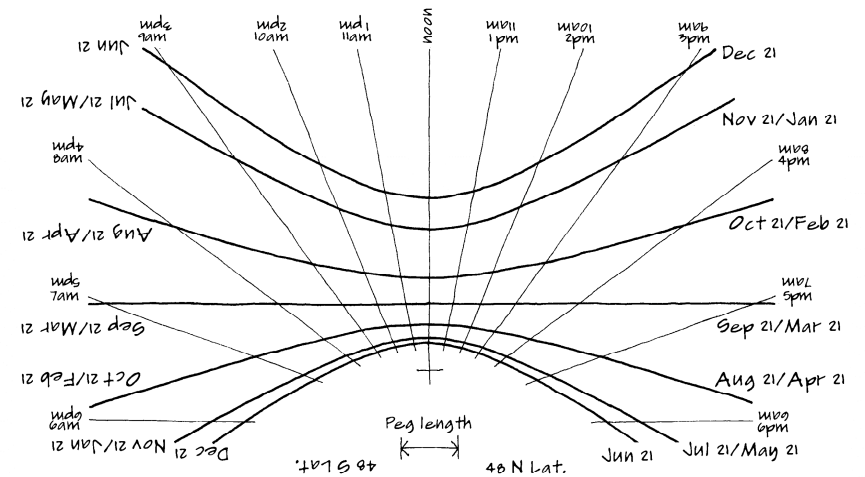
- Site

Outdoor party for André and Claude: outdoor comfort strategies



Quebec City 46° 48' 0" N

48° LATITUDE



Sundial, 48° Latitude

Sun, Wind & Light, 2nd ed. ©2001 Mark DeKay

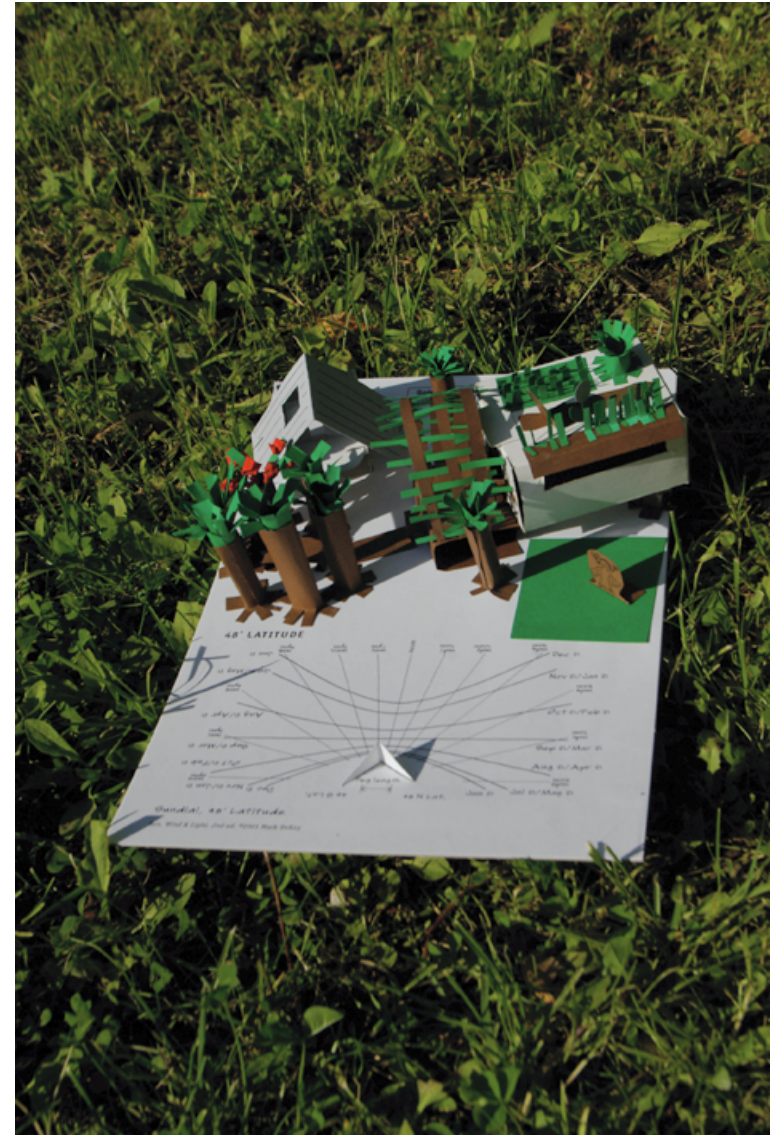
Heliodons from Sun, Wind and Light, Brown & De Kay, Wiley, NY, 2001



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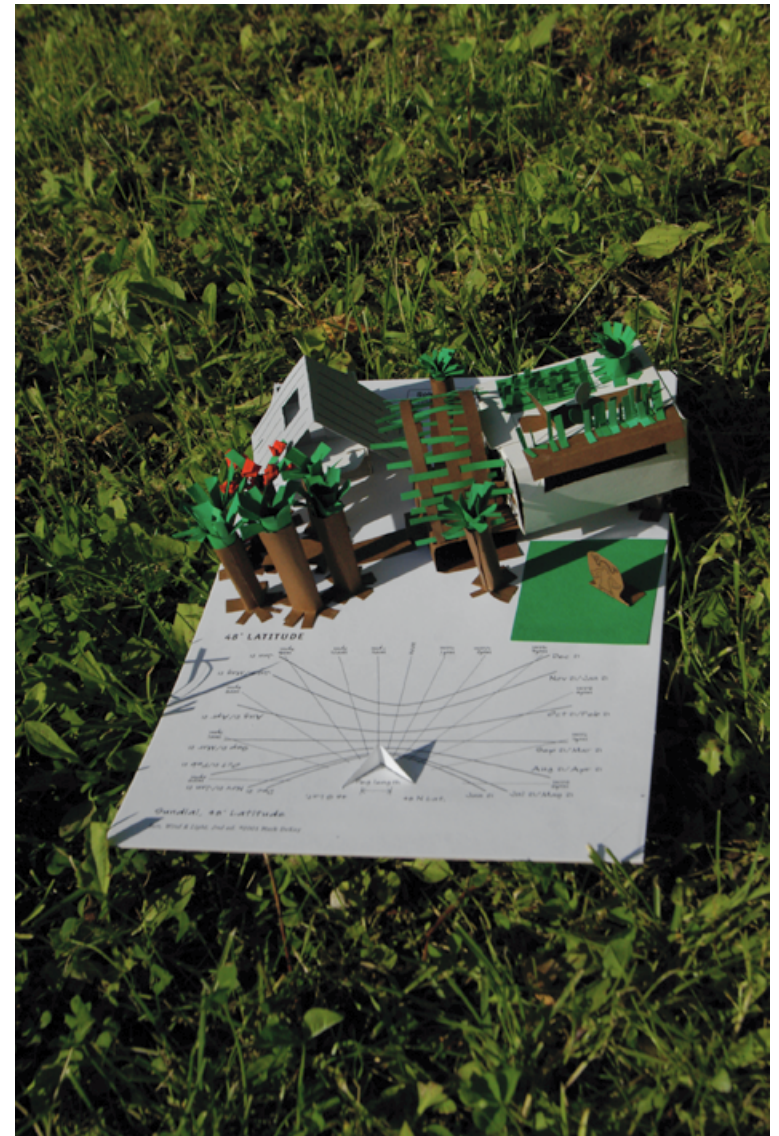




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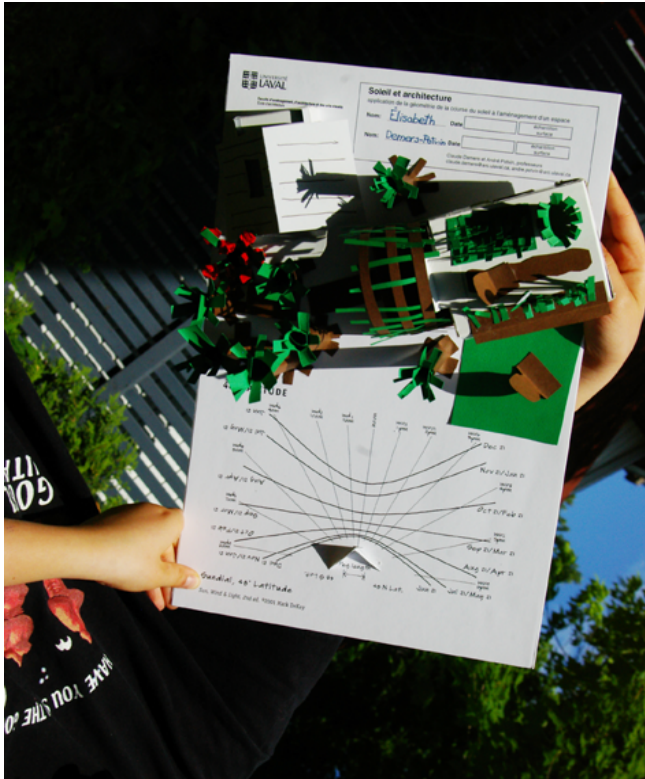




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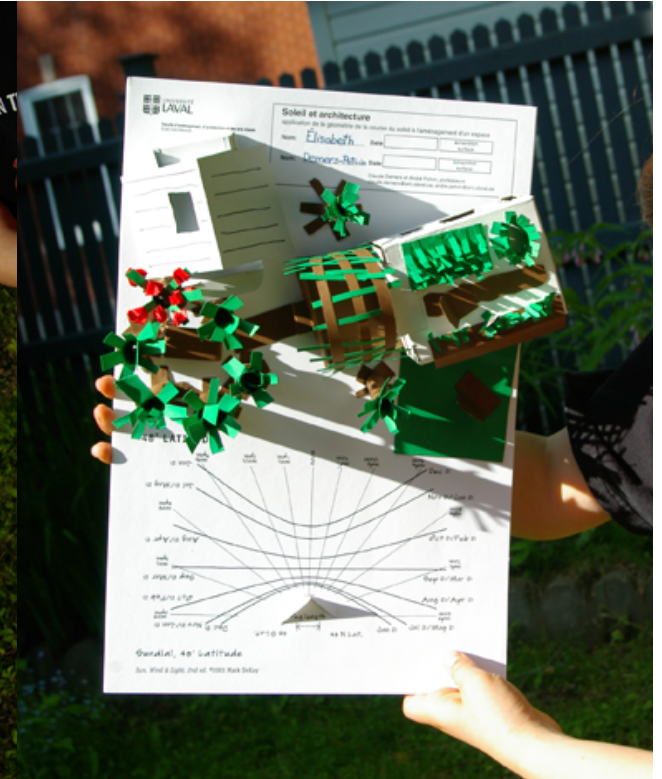




8h



12h



18h



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Preparing the héliodon



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Preparing the héliodon



Do you want
roses or
marguerites?

Roses!



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- Architecture

LIGHT: A skylight for Claude's workshop: daylighting strategies



1. No skylight



2. With 2 skylights



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•Detail / Hand

HEAT, A Solar oven for André's outdoor picnics: passive heating and active eating



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•Detail / Hand

HEAT, A Solar oven for André's outdoor picnics: passive heating and active eating



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Preparing the solar oven



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Preparing the solar oven



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Eating the marshmallows



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HA HA HA!
Now, I have
10,000\$!

Nooooooooooooo!
I've lost my bet!



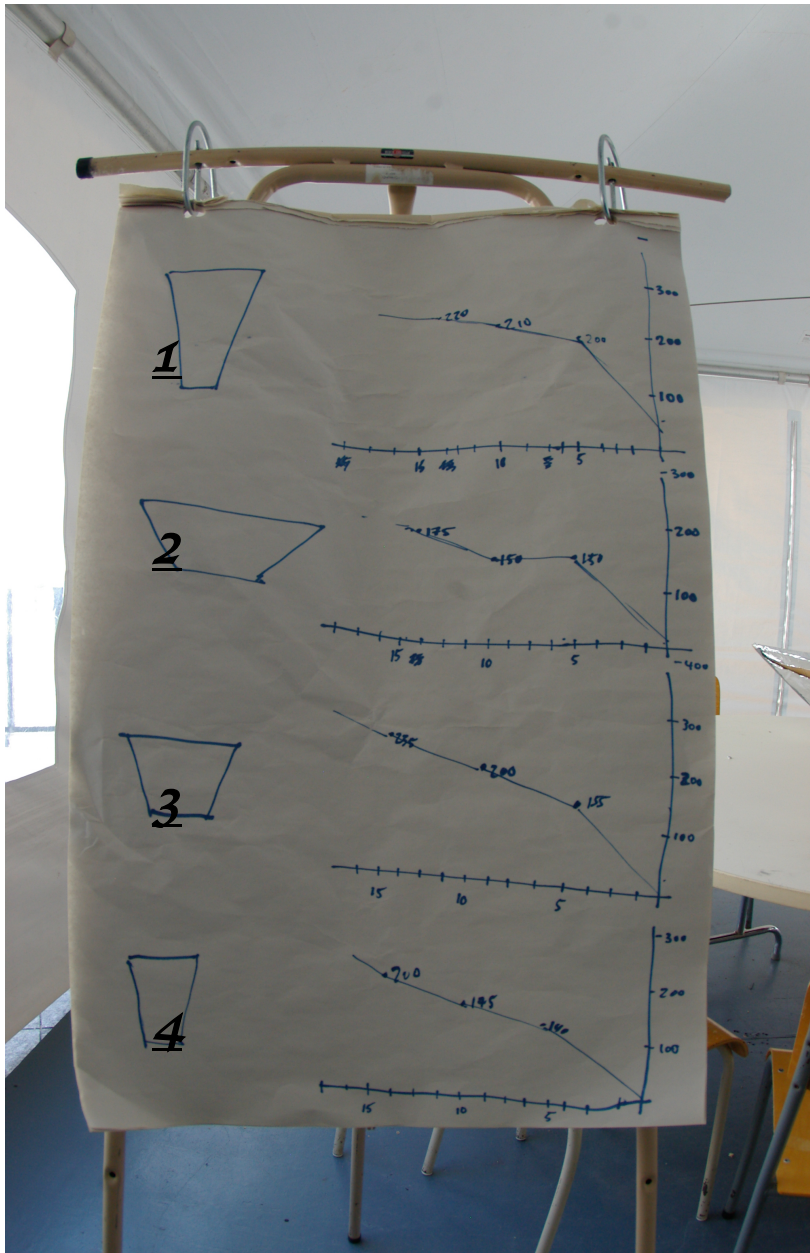
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After 15 minutes of Heating...

- Oven 1: 220° F
- Oven 2: 175°F, the coolest
- Oven 3: 235°F, the hottest
- Oven 4: 200°F





Thermal image showing that the children were the hottest...



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**Well done
kids!!!**



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