

The background of the entire image is a blurred photograph of a person, likely a woman, wearing a purple headscarf and a blue long-sleeved shirt. She is crouched on the ground, cooking over a small, orange, solar-powered stove. The scene is set outdoors on a dirt surface. The text 'Viv' is overlaid in the center in a large, orange, stylized font.

Viv









Solar Powered Stove

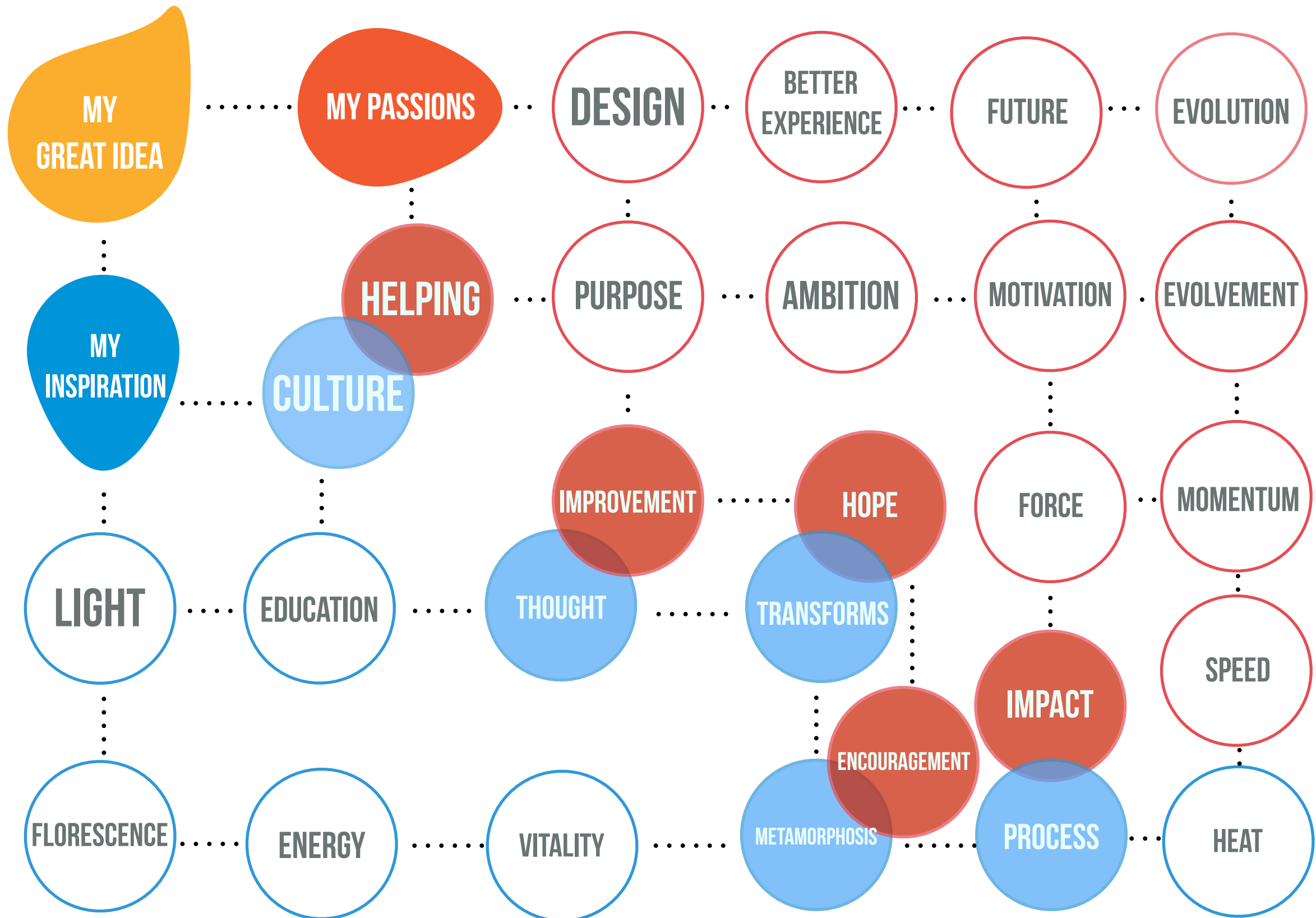
BY ANGELA MARQUEZ

Introduction

Cooking has become a daily part of most people's lives. It can take five minutes if we are in rush or hours if we are feeling creative. In most developing countries, cooking is an everyday challenge because most of the people don't have the technology to cook in a more efficient and save way. This invention focuses its research on the use of using a cook stove in Equatorial Guinea. This process helps to understand not only the user needs but also their broader context that shapes their lives.

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Overview ...

Equatorial Guinea is a very small country located in the West Coast of Equatorial Africa. Their capital which is Malabo is the only entrance to the country (Island). Countries that border Equatorial Guinea are not allow to cross the border through land. People over here speak Spanish and other native african language such as Fan.



Location



West Coast of Equatorial Africa



Political life



Dictatorship

Demography

600,000
people

Language



Spanish

Main Food

Cassava Root, banana,
rice, and yams.

Their future



During my trip to Equatorial Guinea, I had the opportunity to travel to different small towns inside the country– Bata, Niefang, Nkumekie, and Ebebiyin. Our goal on this trip was to provide medicine and a brief health consultation for communities in need. I was able to observe their daily life and the chance to talk to some of them regarding their goals, fears, and motivations.



Cooking in a developing country...

The **limited access to power sources** such as electricity and natural gas limits their available methods for cooking. The use of **charcoal** is the next best option but due to the **cost** of it, sometimes they need to turn to wood that they can collect. For this reason, cooking in many developing countries **is an endeavor** that is both **time-consuming** and **dangerous**.



Not enough
light at night



Breathing the
smoke



Risk of fires



Risk of burning
their body



“ COOKING TAKES MY ENTIRE DAY ”

“ I USE MORE THAN ONE STOVE WHEN I COOK ”

“ CHARCOAL IS GOOD WHEN I CAN AFFORD IT ”

**“ THE SMOKE OF THE FIRE MAKES ME COUGH AND MY
EYES BURN ”**

“ I HAVE TO COOK INSIDE MY HOUSE IF IT RAINS ”

“ IT’S MUCH DIFFICULT TO COOK AT NIGHT ”

“ I DON’T HAVE ELECTRICITY ”





Cooking takes a long
time for preparation



Cost of charcoal
and wood is high



Smoke causes
health problems



Stress

“Devising the perfect stove could prevent one and a half million deaths a year in developing countries, and reduce carbon emissions.” Adrian Tomine



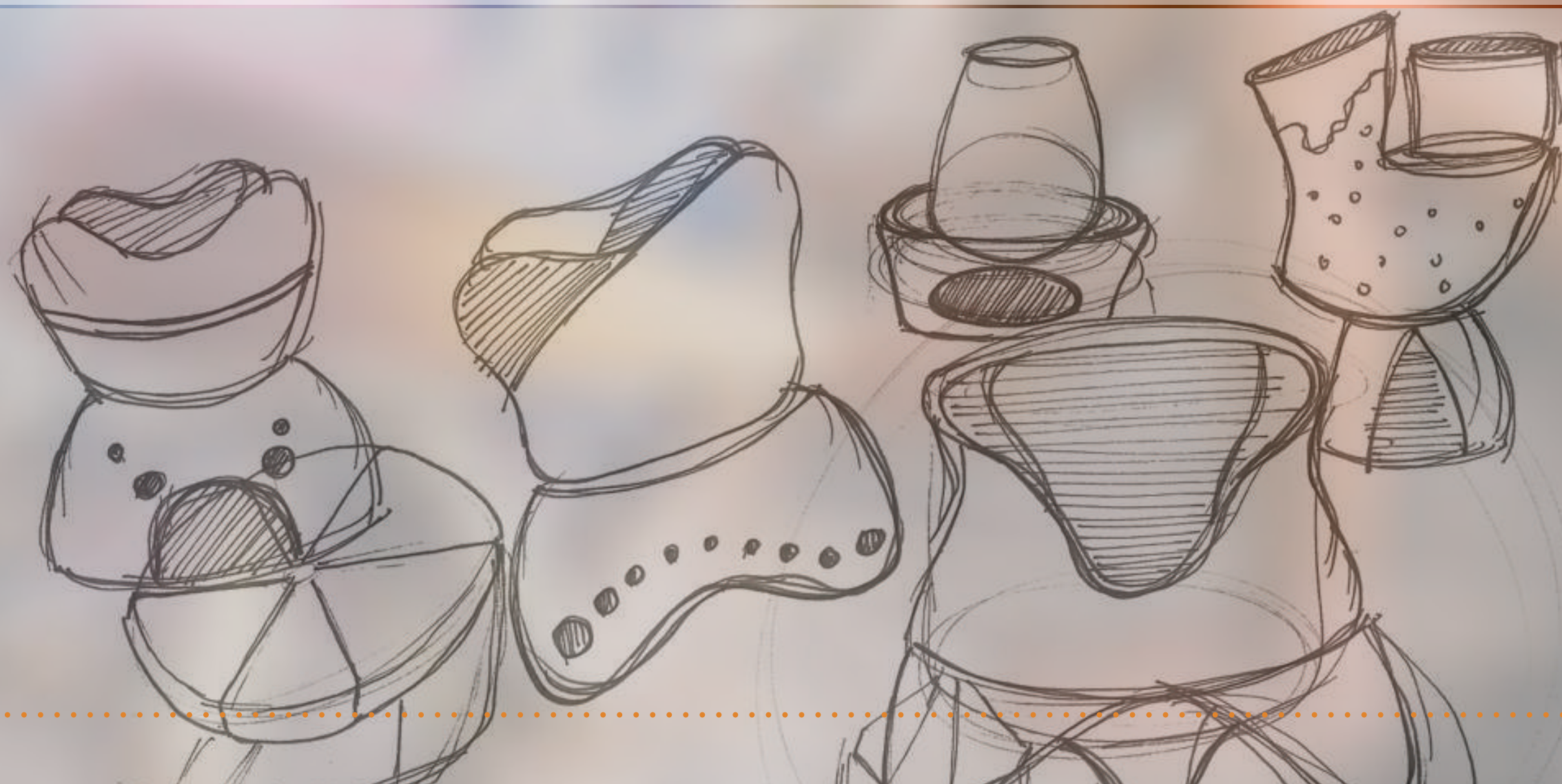
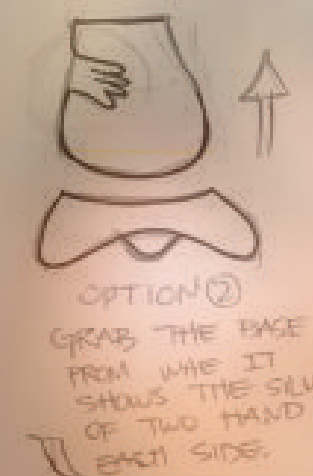
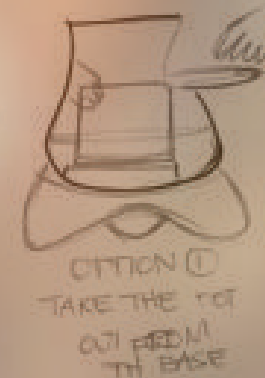
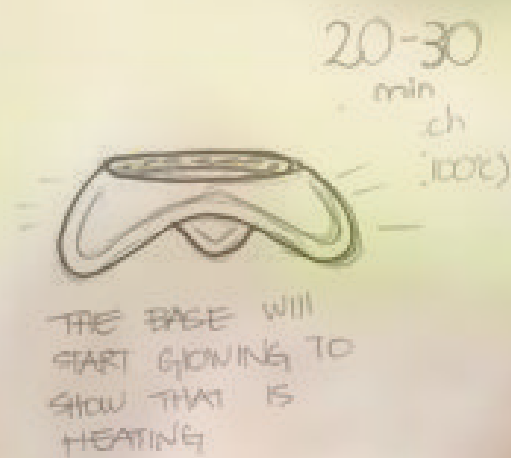
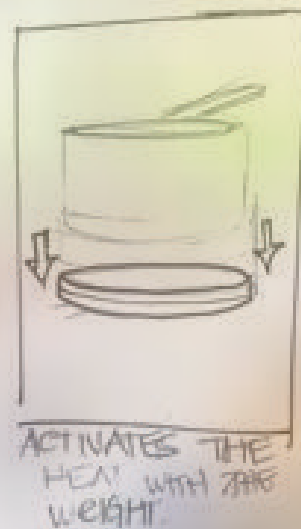
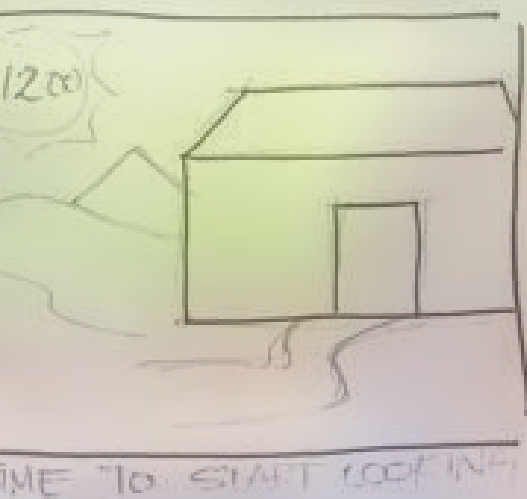


Leslie Speer

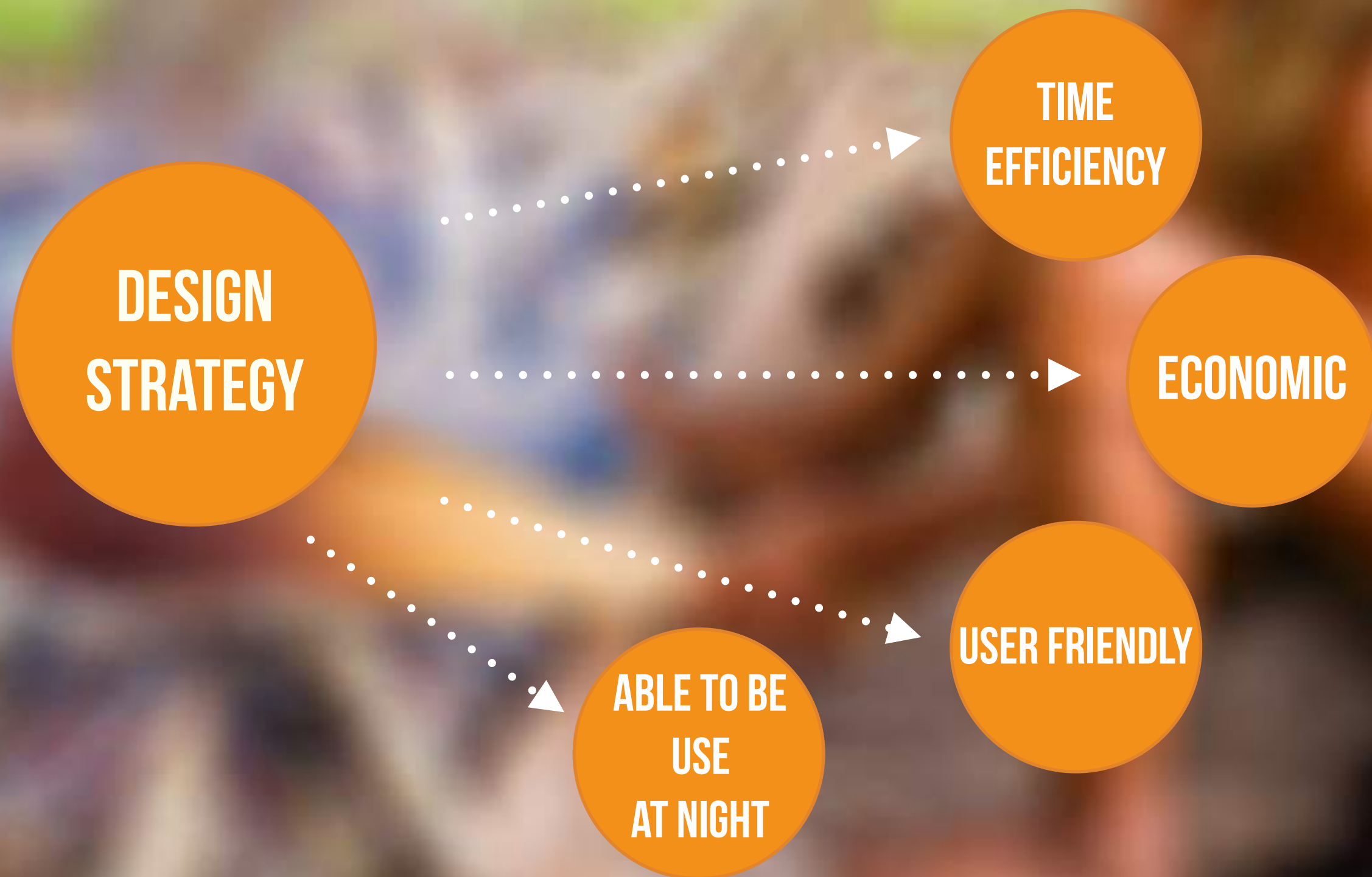
Throughout the process of finding our passion, inspiration from light, and enhancing an experience we had the opportunity to talk to Leslie Speer from CSUSJ about our project and how can we take our idea into the next level. Since I wanted to do something with Design with a social impact, Leslie S. was the perfect person to give me her opinion about my project. Her advice for me was to think about doing something that was economical and sustainable for their necessities. "Think about how this people will react when they see these products. It has to be simple and symbolic for them."

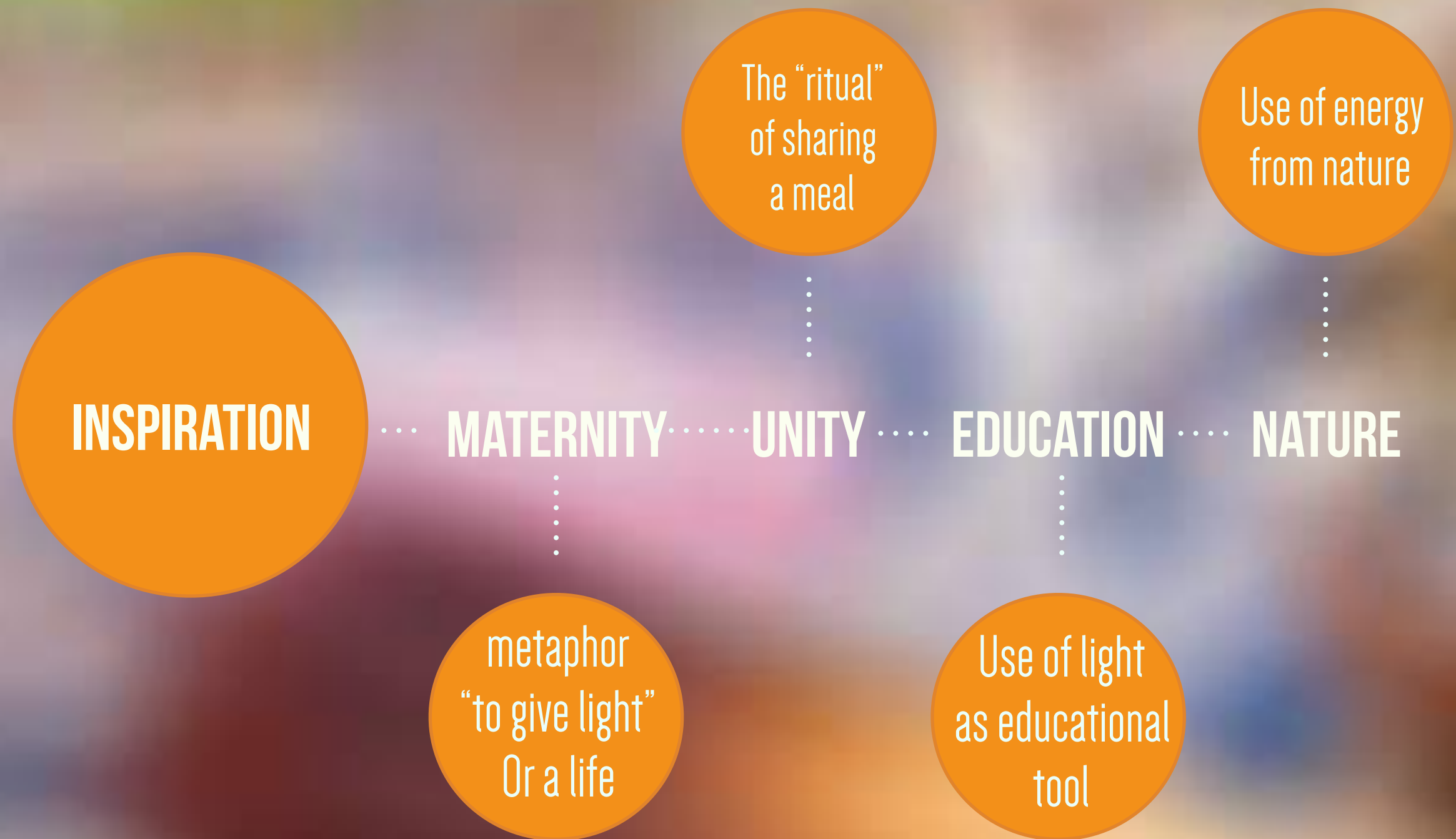
Emotional Connection Economical User friendly Symbolic





Enhancing the experience of cooking...





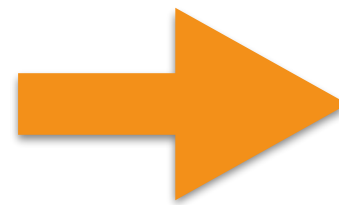




Viv is a solar power based stove that will bring an end to the endeavor. It will allow the user to have a more pleasurable experience when it comes to cooking a meal for their family without the time consuming preparations or toxic dangers of cooking with charcoal or wood.



Once upon a time in Equatorial Guinea...



meanwhile...



It was 12:05 noon. Josh who was very hungry decided to have a piece of bread.

The community from Niefang was preparing the food to be cook with Viv.



ONCE EVERYTHING IS READY, THEY
PUT INGREDIENTS INTO A POT.



SOLAR PANEL
(CONTAINS AN INTERNAL
BATTERY)



THEY PLACE THE POT INSIDE THE
BASE AND AUTOMATICALLY VIV
HEATS UP.
IT TAKES 10 MINS TO HEAT UP TO
212° F.



HEATING PLATE, ACTIVATES THE
HEAT WITH THE WEIGHT





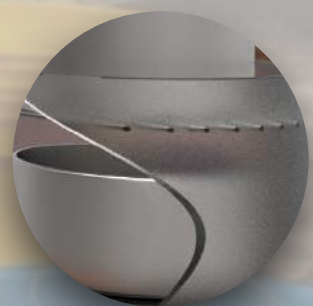
AND BECAUSE THEY ARE STILL HUNGRY THEY DECIDE TO COOK MORE FOOD....



THE GRILL AREA CAN ALSO BE USED FOR STEAMING FOOD FROM VAPORS PRODUCE BY THE POT IN THE FIRST LEVEL.



AFTER ONE HOUR VIV WILL TURN OFF. HOWEVER, VIV WILL ISOLATE THE HEAT FOR 20 MINS UNTIL IT BECOMES ROOM TEMPERATURE.



CLOUDY GLASS,
ISOLATES THE HEAT INSIDE THE BASE



6 HOURS LATTER IT WILL START THE SUNSET

IN MANY DEVELOPING COUNTRIES THAT DON'T HAVE ACCESS
TO ELECTRICITY. NIGHT MEANS NOT ABLE TO WORK OR STUDY.
DARKNESS MAKES MUCH DIFFICULT TO COOK...





BECAUSE THE COMMUNITY HAS VIV, IT ALLOWS THEM TO COOK AT NIGHT AND GATHER TOGETHER FOR A MEAL.

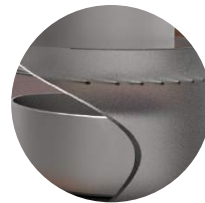


INTERNAL LIGHT WILL SHOW THE HEAT AND ILLUMINATE YOUR WORKING AREA

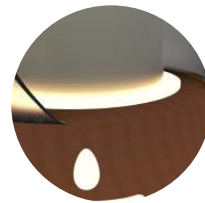




Two levels



Cloudy glass,
isolates the heat inside the base



Heating plate, activates the
heat with the weight



Internal light will show the
heat and illuminate
your working area



Solar Panel
(contains an internal battery)

Viv
sharing a meal with your love ones

