Aalto LAB Mexico

“Making the world a better place”
INTRODUCTION TO AALTO LAB

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What is Aalto LAB

Aalto LAB was born in February 2010, within the framework of Shanghai’s World Expo, and just after the foundation of Aalto University. It was Aalto’s first international collaborative student project and the first to be hosted by Aalto Tongji Design Factory. It was participated by six students from Tongji University and seven from Aalto University, in the fields of Design, Architecture, Engineering, and Business, and facilitated by five designers from IDEO Shanghai. Aalto LAB Shanghai constructed itself within the following seven months; and after many meetings, presentations, discussions, and two trips to China, Tuuli Sotamaa, its creator, finally described Aalto LAB.

Claudia

Aalto LAB is about:

+ Creating a deep understanding of a foreign culture
+ Building life-long relations between people
+ Working in multidisciplinary teams
+ Thinking big
+ Creating new tools for students to use in the future

Participating in Aalto LAB Shanghai inspired me to organize a new one as a case study for my doctoral work. The collection of experiences allows me to say that Aalto LAB is a learning process and a life changing experience; a moment for reflection, and a path to fraternity. Every location that the project shall visit, is understood as a particular region: an ecosystem and its people. Aalto LAB’s priority is to work in marginal regions of the world, and although it is not necessarily limited to them, it requires the participants (“LABBERS”) to make use of their own skills and contribute to achieving the “Millenium Goals”. The LABBERS visit the site, and acquire a small dose of awareness, the challenge is real, approached through design methodologies. Although participating is a personal choice, the results are the team’s achievement.
Aalto LAB
Mexico
Aalto LAB Mexico is developed through the collaboration between Aalto University and two Mexican universities: Tecnológico de Monterrey Campus Ciudad de México (Technological Institute of Monterrey, Mexico City Campus / ITESM CCM), and Universidad Nacional Autónoma de México (National Autonomous University of Mexico / UNAM).

Hoping that many more will follow, this one in Mexico is the second edition of Aalto LAB. Aalto LAB Mexico attempts to improve the model established in Shanghai by paying attention to the feedback given by the previous LABBERS. For example, in this case, the selection of the students was done through an open application and more disciplines have been added to the team, specifically, Anthropology, Journalism, Social Sciences, and Media Art.

A similar location to the one in Shanghai was chosen in Mexico: A rural area valued nationally by its positive environmental condition, whose government is trying to redefine as a Sustainable community, and a place where a design faculty from a participating university is developing a long term project. An additional constraint was considered within Mexico; it had to be away from the drug war conflict zone.

Finally, Aalto LAB Mexico is the main case study for the doctoral work named “Freedom by Design”, developed by Claudia Garduño, from ENCORE team in Design Research Department from Aalto University School of Arts, Design and Architecture.

Aalto LAB Mexico focuses on “20 de Noviembre”, one of the communities where UNAM’s Mayan Design Winter Workshop (http://cidi.unam.mx/mayanworkshop/) has taken place since 2008.

Calakmul is a recently created municipality in the state of Campeche, in the Yucatan Peninsula. Great part of Calakmul’s territory is formed by the largest tropical reservoir in Mexico, Calakmul Biosphere, which is also where the Mayan archeological site of Calakmul is located. The commune (ejido) called “20 de Noviembre” is located in the municipality of Calakmul, just a few kilometers away from the biosphere. It was founded 43 years ago, by a group of Mayan immigrants from Dzibalché. Due to its original land management, 20 de Noviembre could easily access governmental programs for the preservation of the jungle from the National Commission for Protected Areas of Mexico (CONANP).

The context is overly positive and delicate at the same time. It is positive because the inhabitants of 20 de Noviembre have always valued their natural surrounding as one of their greatest capitals and are not willing to compromise it. On the other hand, the LABBERS had to be very careful to arrive in the field with open ears to listen to what people had to say, and throw all assumptions away. The self constructed syllabus necessarily led the LABBERS to research and discuss topics like development, indigenous towns, and sustainability. The long debates held during the first two months helped them get informed and become sensitive about complex issues with no straightforward answers.
Xaviera
master in industrial design

Jan
photographer

Omar
head of sustainable development engineering program

Antti
postdoctoral researcher

Susu
postdoctoral researcher

AALTO EXPERTS

Claudia
doctoral program in design

Greg
documentary filmmaker

Hei
senior communication designer

Hei
senior communication designer

Rodolfo
electrical engineer

Xaviera
master in industrial design
What is development (mindset)

The core of this project is the idea of facilitating sustainable development, advancing resource usage that meets the present needs without compromising the capability of the future generations to meet their needs. However, in order to enhance sustainable development, what must be first identified is what is actually needed now and in the future. In our project where the focus is in collaboration with a rural Maya community, the key to facilitate sustainable development lies in the process of identifying local needs, distinguishing them from haphazard wants and desires. For this, well articulated communication and mutual trust between us and the community members is focal. We believe that delving into the reality of the community is only possible by participant observation and interviews. This interaction evokes deep insights of what makes the community life worth living now and in the future and what are the challenges waiting to be overcome by the help of internal strengths and external facilitation. Turning up for sustainable development requires the ability to think in several scopes: looking into the current moment and zooming out into long trajectories.
City people in rural areas (mindset)

The context of this project is a rural indigenous village just outside the vast natural biosphere of Calakmul in the Yucatan peninsula of Mexico. We in Aalto LAB Mexico, on the other hand, are students from the city. Our interaction with the community hence comprises a drastic social contrast. What has been done too many times under the glorious name of ‘sustainable development’ is to impose practices that hardly suit to local circumstances. What is crucial in terms of the encountering of city life with a rural community is coming conscious about prejudices and slants that might later cause biases in the interaction and formulation of development plans. Respect for the other and a learning attitude must be internalized by us before being able to continue on the path towards a balanced fieldwork experience.
Indigenous Communities

The last general census made on 2010 by the National Institute of Statistics, Geography and Informatics (INEGI) defined that 20.8 million Mexicans are indigenous; this gives testimony to the fact that even when Mexico is an indivisible nation, it has a multicultural integration based on its indigenous peoples. According to the Constitution, on its second article, self-awareness about the indigenous identity shall be the most important criteria to determine whom indigenous law will be applied to and that those groups are the ones inhabiting the country since even before the conquest took place and who have lived according to their own social, economic, cultural and political institutions.

Talking about indigenous identity is kind of complex if we think about Mexico’s historical process; at the end of the Revolution, urban elites sought Mexican identity in rural Mexico thinking indigenism, would be the thread that would unite all communities in the country, because of its “deep” historical roots. The idea of linking Mexican identity with the indigenous identity was rejected by civic leaders who advocated a mestizo approach but still prevailed even when the idea of “indigenous” was based on colonial standards.

These ideas were discussed during the preparation for going to the community, mostly by the Mexican team, because we didn’t want our experience to be less significant. We tried to understand the vision of indigenous people of sustainable development, and how it is permeated by the indigenous worldview that sees nature as a whole, covering the material, spiritual and human life.

While being there we saw how it’s important to consider alternative development policies locally and globally, to see if it is possible to start from the bottom up development, design justifying political initiative to begin conquering the local authorities in the areas of indigenous population, in order to promote sustainable development proposals encompassing the economic, social and cultural, as a more comprehensive, more harmonious, more democratic and fair.

Sustainability

Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.

The concept of sustainable development is the result of the growing awareness of the global links between mounting environmental problems, socio-economic issues to do with poverty and inequality and concerns about a healthy future for humanity. This process of bringing together environmental and socio-economic questions was most famously expressed in the Brundtland Report’s definition of sustainable development as ‘meeting the needs of the present without compromising the ability of future generations to meet their needs’ (WCED, 1987, p. 43).

Sustainability also has to do with livelihoods. ‘A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base’ (DFID, 1999). Livelihoods are likely to be vulnerable. The vulnerability context of a livelihood frames the external environment in which people exist. People’s livelihoods and the wider availability of assets are fundamentally affected by critical trends as well as by shocks and seasonality, over which they have limited or no control. The livelihood framework identifies five core asset categories or types of capital upon which livelihoods are built. Increasing access to these assets may help to support the livelihoods and eliminate poverty. These are:

+ **Human capital**: skills, knowledge, health and ability to work.
+ **Social capital**: social resources, including informal networks, membership of formalized groups and relationships of trust that facilitate co-operation.
Natural capital: natural resources such as land, soil, water, forests and fisheries.
Physical capital: basic infrastructure, such as roads, water & sanitation, schools, ICT; and
producer goods, including tools and equipment.
Financial capital: financial resources including savings, credit, and income from
employment, trade and remittances.

So, a sustainable livelihood must be able to cope with problems related to agriculture,
climate change adaptation, disasters, food security, gender, health, natural resources
management, social protection, water and sanitation, etc. As we see, sustainability has to
do not only with ecology, but with many other themes. The application of knowledge from
different disciplines is necessary to come up with sustainable solutions either in livelihoods
or in any other context.

In order to understand design activism we should first clarify the term activism, which can
be understood as the use of actions and instruments in opposition or support of a cause
that is identified as a way of improving the lives of a wronged or neglected group. It is
therefore natural for us to think of large groups of people making stands and participating in
strikes to promote or demote certain activities or practices but we seldom stop to think that
it is not only these clear manifestations from the people that can have an impact in society.
We live in a world where design and innovation have become increasingly more important
and definitive to the success and survival of the people, from individuals to commercial
empires, yet we tend to forget this very importance in matters that aren’t as obvious or clear
to the mind when design is thought of. Even though the members of a society are well in
charge of changing the status quo by demanding their needs be resolved, they also have
the power of doing so by changing the reality and the environment with the modification of
their surroundings. There are more ways of making an impact than just talking about it or
making a stand. If we keep in mind that objects and spaces have a voice too then we can
make a deeper impact by changing the status as a whole instead of just transmitting new
ideas on thin air.
The objects that surround us, the ones we create to accessorize our lives, are so much
more than that. They are the physical manifestation of the ideas and feelings a society or
group of individuals united by the circumstances share ergo creating a clear picture of the
time and space they are created in.

This relationship between objects and history guides us to the creation of design activism.
Once we are clear that objects aren’t just mere cumuli of matter but a representation of the
historic reality a society is living in we can understand how something that seems as simple
as creating objects can respond to deeper needs. It is also necessary to clarify that design
isn’t activist by itself, not even if it is good, because even if it is beautiful, usable, meaningful
and profitable it is generally aimed to improve the lives of the consumers, whether individuals or other entities.

In order for design to be activist, it must always and without exception be focused and centered in the users and the human implications its use will have. Design activism is a way for people to develop and create objects, structures and systems that will help them solve issues thus improving their way of life as well as to deconstruct dysfunctional schemes to raise the quality of their lives.

It is very important to listen and work directly with the population for which a design is projected since it is exactly this group of people who fully understand the needs, requirements, potential and limits of their needs. It is the job of the designers to create a strong connection with these groups in order to make the best out of these design opportunities. This doesn’t mean that it is only designers that can take on these projects, on the contrary, design activism works better in environments that have the participation of a multidisciplinary spectrum of students and professionals that promote community engagement.

This is the time to deconstruct the design paradigms and start viewing it as a tool for deep transformation of societies with the creation of not only objects but processes that have a relevant impact on how reality is perceived thus creating opportunities and empowering the people, its users. That is the role of Design Activism, to create positive change in every aspect of our lives, from our societies to the environment addressed from a sustainable point of view.
“What was planned?”

The open and non hierarchical organizational structure allowed each of us to delve into individually intriguing topics during the period. The fundamental idea was that no top-down dictated, concrete content objectives were announced for our project, and it was up to us what we wanted to look into during the preparation period as well as on the field. For some of us, the endless variety of possibilities and individual freedom stood for a source of inspiration whereas others felt that the project was imminently lacking a structure, causing individual frustration and shortage of motivation. Nevertheless, during these preparational months before the fieldtrip, insights and inspiration were acquired by shared meetings.
with professionals such as Tuuli Mattelmäki, giving us a presentation about design probes as a method of self-documentation, and Anthony Clutterbuck, providing us with insights about successful fieldwork based on his experiences in a collaboration project with Aalto and UNICEF in Uganda. We also conducted individual interviews with experts providing us with crucial information about design for social change and practicalities of international sustainability projects. What we were trying to grasp was the context of our project and the qualitative methodology we could be using on the field.

Contrary to the Finnish team, we as Mexicans were more familiar with some topics as a result we had to consider that in some point we will have to share with them our points of view about something that they may perhaps not be used to. We held meetings every one or two weeks depending on the work and research we needed to do as well as the schedules of the experts we wanted to share this information with. Since we were not completely sure of what we were looking for, we sometimes had no idea of what to do in our early meetings. Nevertheless, we were able to find inspiration from somewhere and come with useful ideas.

LABBERS in Mexico, getting prepared

As mentioned before, we spent about 2 months from early September to late October getting ready for the experience. During this period, we did some research regarding topics we considered related or found relevant to further understand our future context such as rural livelihoods, indigenous law, sustainability and basic information of the state of Campeche, Calakmul and 20 de Noviembre. Pamela Juan Mariana
for every session. During this time, we also meet with our experts, Rodolfo Alvarado and Omar Rojas, who guided us to continue our research and to bring up the framework of the community.

As we didn’t have a clear idea of what we were going to do, expectations were sometimes vague and our objectives were unclear, but that never brought us down, not even a little. On the contrary, we were more and more excited about going to the field.

Since we’re all students and sustainability can only be reached by empathy, we told ourselves to swallow the pride and to take on the mindset of learning. Already before the field period, we knew that 20 de Noviembre, the community in focus, wouldn’t be facing any of the most typical problems such as exceptionally high child mortality rates, water contamination, HIV-epidemics or drastic natural destruction. We were not heading to a refugee camp or amongst a war zone. No, we were going to collaborate with highly skilled artisans and self-sufficient farmers living in an environment of harmony and safety. What was obvious was the potential for us to learn tremendously much from them.
IDEO as one of the biggest, and maybe the most important, innovation and design firm uses a human-centered approach to solve problems and help a variety of organizations. This method supports them to see a bigger picture and the different patterns underlying the surface. Human-centered design (HCD) is not an innovation from IDEO, it’s a process that has been used for decades to generate innovative solutions. It goes through hearing stories and opinions, creating opportunities and solutions, and delivering top solutions, that work in specific cultural and economic contexts. This process helps to both ask the right questions and increase the effectiveness of the solutions. While being into 20 de noviembre Greg and Hei helped us embrace all the needed information following this method. 
Establishing Aalto LAB Values (through Design Capitalia)

Design Capitalia is a framework being developed in Aalto University by Alastair Fuad-Luke and his students. It is a tool for interrogating the purposes of design. It aims to offer a radical approach that goes beyond the traditional conception of economic capital by identifying many other capitals. In our world of interconnected systems, the different capitals relate to each other so that growing one might diminish another.

Design Capitalia raises awareness that design decisions affect those capitals and their relations.

The framework was introduced in Mexico and virtually to the LABBERS in Helsinki. The connection was awful that day, and we tried to show the toolkit’s cards through a tablet’s camera; it was shaky and confusing, and resulted in everybody laughing a little bit.

Luckily, the framework had been introduced in a blog already (http://window874.com/2012/09/28/designcapitalia-launched-at-okf).

At that moment, we could not really say how the different capitals were related in 20 de Noviembre; we could guess the ones that would be more relevant for our project, and more importantly, we could already tell what was more important for the team. We used the toolkit to get inspired; the capitals and subcapitals were analyzed by the LABBERS; the preferred ones were called out loud: Human: cultural, Social: political, cultural, Public: infrastructure, Commercial: economic, Living: terrestrial biodiversity, terrestrial carrying capacity.

Once we were inspired to think widely about what should be valued most, we proceeded to brainstorm the main values of the team: respect, empowerment, sustainability, collaboration, critical thinking, freedom, love. We ended up with a sentence that defines the essence of this team: Aalto LAB Mexico

“Committed to collaborating and co-creating with love, respect and critical thinking.”
Meeting the Team

Anthony

Fusing the two teams was as unorganized as one would expect. We met some of them since we were staying in their homes for the first night in Mexico. Then we had a brunch at Claudia's, where some of the Mexican LABBERS came, but the fact that they had lessons to attend to fragmented the meeting in that aspect. Also during the seminars we didn’t really have a moment where the whole team was present at once. So basically the first time we were as a whole team was when we were at the airport, although Juan was sick so he couldn’t make it. The good thing was that we got to know the individuals before we got to know the team, but synthesis between the Finnish and the Mexican teams came as a result of intense fellowship and time spent in the field. It would have been good to have had a chance to team up before the field trip by having the Mexican team stay at the hotel as well, for example.

“It was excellent! Actually, I hosted Anna and Sofi at my place, from the moment they arrived, they were cute and talkative, and willing to get to know places; and during the first dinner, everyone was so kind! I think we got along very well right from the beginning!”

Pamela

Using Qualitative/IDEO Methods in Mexico

“IDEO was proud to be a part of the Aalto Lab Mexico experience. It’s always great to see students from all over the world apply Human Centered Design to a fresh design challenge. And in this case, seeing Mexican and Finnish students tackle the issues facing 20 de Noviembre together was super inspiring. The teams worked quite well together to really immerse themselves in the village and get an empathetic sense of how life is there. They also worked hard to bring together their various perspectives on the research and in the end were able to synthesize some opportunities to help 20 de Noviembre help themselves.”

Gregory Perez
Architect Oscar Hagerman walked us through his life work with indigenous communities. His presentation showed beautiful examples of projects that have been made in collaboration with different communities, and gave us examples of the process working in the field. His last words were so touching that many of us were almost moved to tears. His dedication and commitment as a designer is one that has clearly made the world a better place, and his message to us ended in the soothing notion that little by little we’ll all find our way as designers and professionals—not necessarily meaning we’ll ever be “ready”. We have to strive to live in peace with our brothers, and we have to use our right to design the world around us for it to become a better place.

Architect Jorge Calvillo Unna had a wonderful presentation about the designer’s responsibility. He reminded us of the need to change the way we think, if we want to change. At the same time, we need to be careful of our interventions, and have to remember to always listen to the people we are doing projects for. We don’t have time to sit around, we need to act because time has already run out. Continuous growth is not the right direction.

Biologist U. Delfín Montañana gave us a fantastic insight into the inspiration and innovation nature holds. His talk made a point of reminding us of the connections of the universe once again – tug on anything at all and you’ll find it’s connected to the rest of the universe. To make a difference, we need to act, think and be different. Also to understand the potential of a community, we need to learn about the roots of the community. To sum it up; silence your intelligence, be humble, go to the nature, be curious! The principles of life should be the principles of design.

Engineer Rodolfo Alvarado gave us a great lecture titled “Democratization by solar energy”. With the natural systems collapsing, the key to future energy production is in solar energy, which is a free resource for all. His comparison of the amount of jobs the fossil fuel industry creates in comparison to the renewable energy sources was a true eye-opener. Since we’ve managed to change the balance of the world, we need to change the ways to balance it out so that our planet can survive.

M.in Sc. Omar Rojas gave us the perspective of the challenge of sustainability: Engineering in Sustainable Development. With the continuous growth of world population and exploitation of natural resources, we don’t have enough planets to sustain our current lifestyle. We have until 2050 to change the way we are living, if we want to avoid total collapse. There is a serious need for social responsibility and awareness to make the change happen, and his own projects are attacking these issues with excellent results.

Dr. Roeb Garcia Arrazola shared his work of reaching community participation at Xochimilco UNESCO Heritage Site. His bottom line was that water is essential – we can’t make it without water, and forming leaders with entrepreneurial spirit, human sense and global responsibilities can make the difference, of which he was the perfect, positive example himself.

M.A. Irna Laura Uribe Santibañez, took us through “Community development’s role in making the world a better place”. She stated that not being a designer can be very beneficial to a project. She presented the definitions of wellbeing, community and development, and reminded us that Aalto LAB is a facilitator, never a provider of community development.

Susu Nousala reminded us of the fact that the process is often overlooked, since it pushes one out of their comfort zone. This is one of the greatest lessons we can learn from the process – to be comfortable with being uncomfortable. Susu also underlined that where there are constraints and problems, that’s where the solutions are. Our human attractor Claudia has brought us all together, and by being open, calm and humble, we have every chance to make a relevant project for the community.
Soon after everybody’s arrival to Mexico City, we got to meet each other in an informal setting. Most of the team members were present. This was important “quality time” as such, as we were going to spend an intense field work period together in 20 de Noviembre. Truly getting to know the team members and discovering different characteristics before such a trip is crucial in order to form a reliable and efficient partnerships as well as to quickly resolve moments of conflict, that are most likely to occur.

Coming from a wide variety of backgrounds, being confronted with new cultures and a very different way of life in 20 de Noviembre, it was necessary to become aware of the fears and hopes we were having towards the project.

With the help of Greg and Hei, we listed all our possible fears of the outcome and course of the field trip on a single poster. Perhaps unsurprisingly, a considerable number of fears considered the fear of being eaten by all sorts of animals ranging from mosquitoes and snakes to jaguars and chupacabras. However, many were also concerned on whether we would be welcomed by the community and especially whether we would be able to genuinely help.
FILD TRIP TO 20 DE NOVIEMBRE

+ Site Research
  Observation
  Interviews
  Visiting other communities

+ Synthesis
  Brainstorming
  Wrap up
  Theme setting / Finding opportunity areas

+ Ideation (Presenting planning)

+ Visualization

+ Validation (Presentation to the community)
Site Research

Preparing for interviews
What do we want to find out? How?

Arriving at Zoh Laguna, we were just about to intrude into the life of the community. At this stage it was time to decide the priorities on what we would look at in the community. The guys from IDEO introduced us with a research method where ideas were generated by brainstorming using a lot of post-its then categorized into groups and out of which the most interesting ones were chosen to be built upon to get a synthesis of our ideas. Once again bits and pieces of stories we had heard from the villagers were categorized into themes, some of which were highlighted for closer examination.

Exploration in the Field
To conduct the research, we were divided into small groups of about three LABBERS and a designated facilitator. Upon arrival at the community, we were introduced to certain villagers, and were given places to sleep for the time we would be there. The interview method our groups used was referred to as “in house interference” by our friends at IDEO. This meant that we spoke to people of interest, not by asking a strict set of questions, but rather by casual conversation.

Conscious design thinking
Throughout the preparation period of two months, the team members, who were not familiar with the design thinking principle of looking at the merging of desirability, feasibility and viability, had the chance to familiarise themselves with the subject through presentations and individual research as mentioned before. This meant that there were certain ways of thinking and a certain terminology already in the back of our minds when entering the field period, which only got encouraged by the facilitation through IDEO. By getting on the same page in terms of the design language, we could spend less time on translating between disciplines but rather focus on information sharing and synthesis of ideas.

Subconscious thinking
At the same time we did not have a methodology defined for our work as such, so many observations and interviews were done in different ways. This meant that everybody was influenced by their previous expertise when it came to collecting relevant information. At the same time previous exercises such as the design capitalia session linked us to the same value proposition so that empathy was a constant in our entire process, whether consciously or not. These shared understandings are crucial for effective co-working.
When I was young I dreamt about my wife, now I dream about hammocks

Agustin

Agustin is a farmer at 20 de Noviembre. He injured his leg 15 years ago. After that tragic event in his life, he asked his wife for hammock making classes. As he was now physically challenged he needed to think of another activity to gain some income.

At first, his wife was skeptical because you need to walk around the loom when making a hammock, which he couldn’t do. After she agreed on teaching him, he started experimenting with different weaving techniques. He even started designing and creating his own methods. Now he is the one teaching his wife and others. However, even if he is a really good teacher in the ‘hammock making art’, he has been denied holding workshops, because he doesn’t know how to read.

“I never stop learning”

Agustin
We have to keep on moving, no matter how, because we can do it

Sarita is a textile maker. She invited us to come to her workshop and so we did. When we arrived there, we were impressed by all the beautiful things she made: shirts, dresses, belts and even bags. She told us how happy and proud she was with her work and products, because she was the leader of a successful group of textile makers called “Las Amapolas”.

These ladies were so innovative; they came up with the idea of making men’s clothes (with patterns specially designed for them). They are also so open to learn new things that they actually take different types of courses to improve their skills. Sarita, for example, knew how to use the internet and had it as a tool to gather information and making contacts for her products. Her passion to succeed really inspired us. So, we began to wonder how we could take all the other artisans to that level. We were really inspired by this lady and her passion to succeed.

Sarita is a great example of a younger generation taking the initiative in helping the community. She has managed to get herself in a net called “Red de Turismo” which is a tourism program that covers marketing and purchase strategies. When she joined this network formed by men, women, youngsters and elderly who live in the surroundings of Calakmul Biosphere, she became the leader of several women within the community. They are all indigenous farmers and producers of organic items.

What made her very interested in joining the network was that the network was formed to attract visitors and governmental support to their Ecoturistic community projects, due to the lack of interest of institutions in promoting them. The network is promoted on a website (http://www.redcalakmul.com/red.html), and on a printed catalogue, which was financed by SEDESOL, by initiative of Naturada AC.

“I’m 27, but people in the community usually tell me that I seem much older, as I’ve learned many things, through my experience”
Leydi is a lovely and warm person. She woke up one morning at 4 to make a birthday cake for one of our team! She’s a widow with three sons and feels she has “to be both mother and the father to (her) sons, sometimes that’s really tough”. She provides for them by doing wonderful textiles and she really has a positive attitude. Her only issue is that there is no infrastructure to sell her goods i.e. not enough customers come to the village to buy and no marketing knowledge.
As was discussed in the IDEO methods, we used again loads of post-its to get a synthesis of our ideas. After focusing on a few ideas we brainstormed on them.

After information collecting, all LABBERS met up once again to tell about their findings and to evaluate them in a similar fashion as when the research priorities were chosen. Once again bits and pieces of stories we had heard from the villagers were categorized into themes, some of which were highlighted for closer examination.

Out of the themes, we identified a few issues we could possibly tackle. Once again, we started planning solutions by brainstorming ideas, categorizing them and discarding unfeasible and unviable ones. We had many ideas, but in the end it was chosen that the focus will be on the artisans in the community.
How Might We...

We asked ourselves the question “how might we”, to get ideas of what we actually would want to suggest to the village. This method brought us also to think of the different obstacles the village was dealing with in our opinion.

Ideation

Working from the how might we’s, we voted to get three ideas we all stood behind and then took time to make the ideas as good as possible and formed them into a presentable form. These we then presented to the villagers the next day.

Validating proposals

In the last phase we held a presentation to the community, presenting our ideas and getting feedback from the villagers as well.

Nina

Ideation

The process of working on the field resulted in piles of interview notes, quotes and observations. In the end of the fieldwork period, still located in the South, we put our heads together and we started finding similarities and affiliations in our data. If we look into the challenges arisen in this process, according to the extent to which they can be solved within and by the community we can find a clear pattern. However, we found also a set of more complex societal challenges, that require rather long term interaction with external stakeholders since they can’t be fought alone by the community.

Sofia

However, the challenges, we found the community of 20 de Noviembre currently facing and able to resolve in a self-reliant manner, were:

- Lacking bridges to the market place (customers, materials) and the municipality (long term)
- Deficient internal communication and organization towards unity and common goals
From the stories and the overview of the current situation we also draw that the main strengths of the community, helping it to overcome these issues, were:

- Creativity
- Innovativeness
- Enjoyment of artisanal work
- Usage of local ecological resources
- Positive community atmosphere
- Positive examples of support and networking skills

In sum, in the interviews and observation we had found several examples of persons in the community that convinced us that 20 de Noviembre has the potential to overcome the issues of organization, learning and communication. Based on these existing capabilities and potential in the community, after our field period in the review session we suggested the Maya community to:

- Increase the extent of sharing knowledge & learning
- Create a unified way of working together and internalize a unique community identity towards inviting small-scale ecological tourism

"Structuring on the wider level & storytelling: finding the shared story to tell to the rest of the world"

Validation

After finally coming together with the two main issues, previously established, we needed to come up with suggestions, to start overcoming those issues. In creating those solutions we needed to make sure that they were self-sustaining and that required the minimum of external and outside participation as possible. Because after all we were coming back to the city and until the second phase started we could not promise resources as freely as we could if we got sponsors and stakeholders on our side.

So, the suggestions we made in the community meeting were:

- Increase the extent of sharing knowledge and learning
- Create a unified way of working together and internalize a unique community identity towards inviting small-scale ecological tourism

To make clearer what we meant with both of these points we needed to talk about some activities that the community could start implementing and how could these activities evolve.

- Establishing a community board. We suggested that the location of it was very important because it should be a place where they all could take a look. In it they could write the ‘events’ that were taking place in the village. Also another important feature of it was the “tracking of government promises” where they would write a certain commitment mentioned by the government and its status.

- Creating a community brand. As they have trouble reaching a place where they can sell their products because of the cost that transportation and establishing a proper place that shows the beauty of their crafts, we suggested they could mix their products. For example,
they could make wood boxes to keep the soap inside and decorate it with a towel made by the textiles in the community. This item should be identified with a creative logo that represents the community and that could be sold in the same place so the transportation costs decrease.

+ Map of the community. It would make easy for tourists and visitors to locate their interests.

The community was very thankful for the suggestions and agreed to all of them and the clear ideas helped them realize the changes that could be done and that were not complicated, and easily applied. Some of them even mentioned with the purpose of that the community would become more integrated and they all could benefit from that union.

However, after the review session we flew back to Mexico City knowing that there was still a lot to be done: we still had to formulate a project plan for the long term challenges to be solved by the help of external parties and present it to ambassadors and the academia.

"Together we are one"
Back in Mexico City, we gathered again together for a whole day in order to form a structure for our project overview to be presented on the next day at the campus of UNAM. Ambassadors of Finland and Mexico would be present in the first session, and in the next one focal gatekeepers of Tec. de Monterrey and UNAM would be attending. Our mission was to present our findings resulting from the fieldwork period and persuade the stakeholders to commit to the project in the future. We aimed at being as convincing as possible. However, we didn’t find it easy to form a coherent story that each of us could agree upon. It took us until the evening before we had the storyline in our head. And then it still had to be put into a visual slideshow. Luckily our teams included design students whose Indesign skills were as good as professional. Even though the process of constructing a story to tell and visualizing it for the next day’s presentations took us nearly 20 hours and some of us got to sleep only for a couple of hours, we managed to make it in the end. Additionally, as a prominent advantage for our project, while we were working towards the storyline, Antti, our filmmaker, made during the day a 4-minute clip about our trip, giving an impression of professionalism and commitment.

For the final presentation we outlined the future implications according to the entities that might be involved. We divided the co-operation into four sections: government (1), academia (2), NGO’s (3) and corporations (4). The future of 20 de Noviembre is partly dependent on these co-operative projects, but there are also matters related to the livelihood, handicrafts and other aspects we did not bring up in the conclusions part of our presentation.

PRELIMINARY RESULTS AND DISCUSSIONS

“The process of coming to conclusions and presenting them to the audience”
GOVERNMENT: With regards to Government entities (both in Mexico and Finland), we suggest the co-operation between the embassies and diplomatic workers to be able to echo the voices of 20 de November to higher levels in the society.

One of the challenges brought up by the community members was the lack of linkage with the decision makers, government representatives and different layers of society in general. The actual propositions we might give are as follows:

Establishing a partnership program between the Finnish and Mexican embassies and promote micro-financed activity such as selling of artisan products from 20 de Noviembre, sharing stories and organizing field trips

Updating the trainee embassy trainee program towards a more participatory nature. The trainees could spend part of their working period on site at 20 de Noviembre and/ or surrounding communities participating in the local activities and documenting it.

ACADEMIA: Academia would most likely be interested in the possibility of making publications on the themes related to the community's cultural and social aspects. An Aalto LAB Mexico 2.0 project could include a student project or several that dig into certain aspects of the community and its surroundings. These sub-projects could find their guiding themes from architecture, design, business, engineering etc.

NGO’S: NGO’s are surely already interested in the geographic area in question. As mentioned previously, Calakmul is listed as an UNESCO World Heritage Site, which means that an interest towards the area and its cultural history exists. However, when visiting the different communities we learned that actual projects other than the ones related to the pyramids had not been initiated on behalf of NGOs. Perhaps it is due to the organizations having a lot going on in the region as it is, or then there must be some other explanation to it. What we would suggest is that in order to ensure the professionalism and “back-up” of an external entity, it might be beneficial to invite an NGO to work as a partner in 20 de Noviembre. The gains of the project for the NGO would be as follows:
Being able to gather first-hand comparable information among the community
Relate what is learned to other projects
Gain a better understanding of the area and its history (the pyramids, ejidos, livelihood)

Most importantly the partner NGO would have the chance to nurture the relationship between the government and the indigenous minority groups.

CORPORATIONS: In terms of business implications, after the field period it was evident that any commercial activity concerning the community needs to happen according to their own needs and wants. The villagers clearly wish to have more assistance in organizing and managing the commercial procedures such as obtaining of the materials, finding new sales channels and meeting the market needs in the quantity and design of the products. This however does not mean that they wish to give the power to make decisions upon these matters to outsiders, in some cases not even to the local officials.

In terms of co-operation with companies, we had the great opportunity to take Finlayson fabrics (thanks to Anthony) to the community and give them to the artisan ladies. In just three days, the ladies created amazing clothes and home textiles from the fabrics.

Presentation at Didrichsen

We collected the ready products from the artisans and asked them to give each product a price that would then be presented at Didrichsen museum “MAYA 3: LIFE, DEATH, TIME” On December 21st. As an idea that came up spontaneously during the fall, the collaboration with Finlayson brought many new ideas and some actual results as well. The representatives of the marketing department at Finlaysen were unfortunately not able to attend the event at the Didrichsen museum where the products were sold. They were however very interested in seeing photos of the products and hearing about what the community had created. With a little bit of marketing and sales efforts, we are sure it would be possible to widen the co-operation for the next possible project among the community, since the interest towards the subject has already been raised.
Social Sustainable Development Plans

As we know, sustainability brings together environmental and socio-economic questions. For this reason, sustainable development plans must include business, engineering and social solutions, all based in a human centered approach. These outcomes can be developed taking into account the five core assets of sustainable livelihoods: human capital, social capital, natural capital, physical capital and financial capital.

After analyzing our ideal scenario we divided it into five main sub-projects for which we found twenty eight principal strategies that could be used for the fundraising, all of them are listed in each project.

All of this strategies respond to the idea of a cultural, artistic, human helping bigger project and were chosen thinking about the community’s possibilities. This will be the way we would use some those strategies to support the following three main sub-projects.
Knowledge Sharing

Pamela

Just like Agustin there are many other people with the same issue, they don’t know how to write or read, which makes it harder for them to translate their knowledge to others. In an ideal scenario, Agustin is one of the best and most widely known hammock makers in Mexico. He not only teaches the techniques he has created but also shares the passion of innovating and creating more patterns along with his students.

Agustin is a perfect example of the innovation power and skillfulness that lies in the village. This is visible throughout the different artisans from soap making to woodcraft to fabrics and hammocks. Thinking about how could we get Agustin to the perfect scenario for the community we would need to make it easier for them to get the materials they need to produce their amazing crafts. Also, the lack of a ‘market’ where they could show and make a more active income would need to be covered.

Proposals

Knowledge sharing inside the community. This proposal is meant to encourage the villagers to share some information about happenings, as well as to maintain intergenerational knowledge between the community members. This will help them to have a better management of their crafts. Tangible solutions to achieve this are:

+ Have a community board where they will be able to share events, follow up government programs and coordinate artisan groups.
+ Have a community center in which they will achieve the intergenerational knowledge sharing by teaching the youth the community’s traditions. There they will be books for curiosity, so they can inquire into different topics, as well as a telephone and maybe Internet for research purposes.
+ Education system inside the community must be enhanced in order for the members to have a better development. To achieve this, basic education programs inside the community must be implemented, so that in a future every single member of the community has basic education. Also, volunteers both from Mexico and Finland will encourage learning inside 20 de Noviembre. Materials and books, as well as proper installations for education purposes. Facilities for those who want to go to college and University, such as transportation and scholarships. A scholarship program should be implemented by the government and different educational institutions.

Human Capital

We found a lot of human capital inside 20 de Noviembre. As mentioned before, their economic activities are based in the work of the artisans, who’ve got high artistic skills. These people were also willing to learn new things. There was also a great spirit of collaboration between the members of this place and we were able to see it in the artisans, since they always work in small groups and never alone. However, they didn’t share information and tips between the different groups. In terms of health, the community members are healthy in general, but they have no access to medical services inside the community because there is a small health center, but the doctor goes only once in a month and they don’t have the equipment required to treat serious diseases.

Finally, we observed a lack of education services and institutions. There is only one elementary school inside the community and the secondary and bachelor school are outside the community, about twenty minutes away by car, in a nearby town called Xpujil. Only some of them go to bachelor school and a very few to a university or technical school.

Poor health can severely affect a household and the livelihood outcomes of its members. As well as affecting the individual and their ability to work. Health care must be reinforced. To attain better health services, a program of medical volunteers (from DWB, Finland, UNAM, ITESM, etc.) can be implemented so that people could be attended when needed. Also, is important to preserve traditional medicine as well as to implement preventive medicine and a culture of nutritious diet in the community. Find a way to achieve a fund for extraordinary cases, so that the families can use it in case of hospitalization or delicate treatments.
People inside the community organize themselves in different groups, according to their main activities (textiles, hammocks, apiculture, soaps, woodcraft, agriculture and forestry). We also were able to see that women had a very important role in the community as they were the ones to lead most of the crafting groups. Despite this apparent organization, we noticed that there was a lack of leadership in general, inasmuch as mentioned before, they do not have contact among the different groups and they only focus in their “group” interest, for which reason there is also a lack of knowledge sharing between the craft groups. Moreover, as they do not communicate within groups, there is no organization to have external contacts for obtaining materials they need, or even for presenting complaints to the government.

**Proposals**

+ **Knowledge sharing** inside and outside the community. This solution tries to encourage information sharing between artisans and to create communication channels inside the community.

+ **Assign artisan representatives** in order to facilitate the communication between artisan groups and bridge communication between the craftsmen and exterior participants.

+ **Implementation of communication canals** must be done, in order for the members to be independent and communicate with external contacts. For this, the implementation of telephone lines and internet must be achieved.
Also, after highlighting the potential of knowledge of the community, we believe that the municipality of Calakmul would be highly benefited if we promote the exchange of knowledge among the other communities. Thinking that number one strategy could be enhanced to a national, and even international demand for a system capable of sharing knowledge, history and cultural heritage would be urgent. We believe that we should not let these precious experiences are lost over time.

For this project we believe the best chances starting-up funding would be: capital campaigns, charitable activities, charitable events, crowdfunding (reward system), donations out of publicity, electronic donations, face to face meetings, products with a cause and using personages.
In order to get Sarita and the other craftmakers to a higher level in the country and international, we need to think about how to install the same attitude and organization spread throughout the community. Currently there are not internet services in the community. If they want to use the web, they need to get to the closest village, Xpujil. Which means that they have to spend around 140 pesos roundtrip to get there. Too make the comparison; they usually sell a shirt for example in 150 pesos.

Unfortunately, 20 de Noviembre doesn’t have the essential components of infrastructure to achieve a sustainable livelihood. For instance, there are no transportation facilities. Only a few members of the community have a car and there is no public transport near the community, only school bus passes twice a day to drive the children to schools in Xpujil. There isn’t a communication system, to say, there is no telephone lines and no other way of communication inside and outside the community. Also, there is no drainage system and people in here have low access to water services. They use wells (not pumped ones), rain harvesting systems implemented by an NGO called SANUT and water from a small water spring to have access to this resource. The new houses include toilets flushed with water, but the water has to be carried in buckets to flush them. They used to have dried toilettes, but the government has changed them to water toilets. Respects to their homes, most of the houses are made of wood, and have now got a metallic roof. They’ve also got a “solid ground” (cement). But they also have bad electric installations, being that there are no fuses, they’ve got uncovered wires around the house (which is really dangerous considering the wood made houses), and there is a low quality in the connection that comes into higher electricity bills.

Proposals:

Water
The quality and accessibility of water is always a crucial element to consider, so that people will be in good sanitation circumstances. For this reason, some actions need to be taken in the community:
+ Make a chemical analysis of water in order to assure a high quality of it.
+ Improve sanitation system.
+ Reuse of water.
+ Improve rainwater harvesting system to take bigger advantage of it.
+ Implement the system of “Jagueyes” (big water pools) for consumption and agriculture.

Electricity
As mentioned before, the electrical infrastructure in ‘20 de Noviembre’ is not very efficient and it is not secure for the people living in the houses. Crucial points to be treated are:
+ Make the electric network secure by implementing a protection system using fuses and grounding.
+ Make the system balanced and endured.
+ Check bills’ assignation, to ensure fair charges.
+ Start implementing solar energy system and/or other alternative energy sources.

Construction
It is important to have a correct construction infrastructure in order to have security inside the people’s homes. Some actions needed to be done in this area are:
+ Lower cement consumption and increment the use of organic materials such as bamboo, stone or wood.
+ Lower heat inside the houses by plant trees on the south of houses (which allows shade during the hottest hours and sun during the fresher).
+ Change dirt floors to ceramic floor or other firm.
+ Implement rainwater harvesting systems in every house.
+ Eliminate water seeps inside the houses.
+ Introduction of Energy Saving stoves.
**Transportation**

Increasing quality in transportation services will make it easier for the community to connect with the outside, as well as to access to basic services such as education and health.

+ Implement a bicycle use culture inside and outside the community.
+ Make public transport affordable.
+ Use of hovercrafts for pyramids.
+ Share provided transportation.
+ Designate and develop transport services for tourists.
+ Paving of roads, so that people can be able to move along '20 de Noviembre'.

**Waste management**

This is important to reduce their effect on health, the environment and aesthetics. In order to handle wastes in the community, several actions must be done, which include:

+ Generate little waste.
+ Separate of waste.
+ Stop burning garbage.
+ Take out waste from the community.
+ Make compost to use it as fertilizer.
+ Use sawdust for dry toilets.
+ Recycling companies partnering with 20 Nov.
+ Companies involved (i.e. Coca Cola, Marinela, etc. take their trash out).
+ Reuse waste for craft making.

**Motors/Machines**

Some families in the community has a car or a motorbike. Still they don't know how they work. With some workshops interested people could learn how to fix minor problems with their vehicles.

+ Teach machine maintenance in workshops.
+ Bring volunteer engineers from different schools to give the workshops.
+ Have a spare parts database to keep everything under control.

**Engineering**

Engineering wise the village would need a lot of help. For one, they don't have the basic understanding of electricity, which they are working with daily. The houses and workshops have no fuzing, whatsoever. This has, and will, cause fires in the community. Also the electronics are not covered from rain.
In 20 de Noviembre it was easy to notice the huge biodiversity they had and the easy access to natural resources for the people in the community. Although they’ve got a lot of natural resources, they had a very good management of them. They only use 1/3 of “their” forest to extract natural resources, wood for example; the rest 2/3 were under conservation policies. They made use of some space of this area to grow some crops (corn and beans mainly) for self-sustenance. In this region, there are no drastic changes in seasons, but they are sometimes affected by the strong rains caused by hurricanes, which end up with floods and destroy their crops.

Proposals

Agriculture. 57% of the life in rural areas depends on agriculture and natural resources for their livelihoods. Agricultural growth contributes to poverty reduction by improving rural incomes, utilizing the productive capacity of people’s land and labor assets, and providing food for rural poor. [C13]

+ Not to cut down more forest.
+ Use polyculture and crop rotation techniques to mimic the natural ecosystem diversity of herbaceous plants, and avoiding large loads on agricultural land of unique crops, or monoculture.
+ Use organic fertilizers, not chemicals, to grow the crops so that land will not be wasted and the environment will not be stressed.
+ Promote endemic products to gain renown.
+ Implement new irrigation systems, such as drip irrigation to save water and fertilizer by allowing water to drip slowly to the roots of plants, either onto the soil surface or directly onto the root zone.
Infrastructure (Fundraising Strategies)

Water project
As mentioned before, water is crucial factor involved in development. For this reason, a project that includes implementation of water softening and potabilization techniques, as well as water collection system improvement (building a “Jagueye”) and an alternative way of irrigation system in order for the people to save as much water as possible. (18 y 22?)

Electricity project
Besides the water project, an electricity project that implements secure, by installing fuses and covering wires from exterior, and efficient electrical systems. This will guarantee the well-being and fair payment of electricity bills of the members of the community. Alternative sources of energy, such as solar panels, could be introduced later, provided they do not affect the ecosystem and way of life of the community.

Waste management
This program has to include a progressive introduction of a new culture of waste management that includes reduction and separation of waste, as well as stop burning garbage. Also, implementation of compost techniques to be used as fertilizer will be beneficial. Finally, reusing materials and involving recycling companies is needed.

Taking into account the technical nature of this projects the strategies could be targeted even more easily than the ones of the projects above, following this idea, the best funding strategies could be: donations out of publicity, electronic donations, face to face meetings, general collect, posters and ads in public, request for volunteer time, sale of products, social networks, special events (in general), special taxes, sponsorship of scholarships, telethon, urns and envelopes and using personages.

Empowering Economic Activities

With regards to Leydi, the situation was a bit more complicated. Leydi brought up the fact that she is resourceful in terms of producing a lot of products (clothes, linen and other fabric products), but would need assistance in finding promotion channels in order to gain sufficient revenue for her efforts. Leydi was not part of the group of artisan ladies nor did she have many contacts outside the community.

Financial capital
There were no significant financial stocks in 20 de Noviembre. People in the community live with daily profit. Only a few can afford to save some money. People only have stock in food form, and it is for their own consumption. As mentioned before, the economy of 20 de Noviembre is based on craft sells, but the artisans have bad marketing skills in general, and they sell their products at very low prices. Finally, the only support they receive from the outside is a pension from the government of $3,000 MX per person, per year and the money obtained from the governmental programs “environmental services”, where they get paid for taking care of the jungle, and CO2, where they get paid accordingly with the O2 production.
Proposals:

+Cultural Brand. We think a great idea would be to create a cultural brand that would not only be original but sustainable and would reflect and project the human and touristic potential of 20 de Noviembre. This could be achieved, for example, in making product labels tell the stories of those who produced it, its passions and desires. This objective would also create a system of community tourism.

+Community Tourism. Although 20 de Noviembre is located near the Calakmul Biosphere, we believe that the touristic focus should be given is a community tourism, the reasons are simple, eco-tourism exploits a potential that is less than the potential of the community. After our stay, we saw that their human potential and knowledge is even greater than that of the surrounding communities, although they do have a lot is, they use it primarily in the production of eco-friendly products, while 20 de Noviembre produces artisan products that focus on their love of knowledge and creation.

+A community map/catalogue, so that tourists can be able to know where to go in case of wanting to know a specific craft or place.

+Infrastructure to give the tourists a good service. This infrastructure includes roads, accommodation (hotel and houses), WC, showers, sanitation and food.

As a complement, craft tours will be organized so that foreigners can get involved with the artisans and their way of living.
Empowering Economic Activities
(Fundraising Strategies)

As regards to the forms of fundraising for this project believe the top five strategies to make it work are: auctions, fashion parades, products with a cause, special taxes and using personages. We believe these strategies should be used alongside the marketing of the brand, making this support community development. When the brand is positioned may be commodities and elite, which would be subject to become collection items.

In order to enhance the community tourism project our top ten funding options are: annual campaigns, auctions, crowdfunding (reward system), donations out of publicity, electronic donations, face to face meetings, posters and ads in public spaces, social networks, special taxes and using personages.
From the time we started this project we had several stages of research, in which we tried two things: first, to know as little as possible and second to learn as much as we could. Although it appears that these concepts are opposites, their difference is simple, while we were still in our cities we tried to have a solid theoretical base that would allow us to feel a little more comfortable with the environment that we would face in 20 de noviembre; but not rigid enough to prevent us adapt to community, to understand and find their true needs. One of the biggest and best research tools were ourselves, our ability to socialize, empathize and especially to listen was what opened the doors to the heart of the community and to the core of the problems they faced.