석사학위논문

양케 지역의 소셜디자인을 통한 안데스 문양 문화상품 개발 작품연구

Development of Andean Icon Products as a Social Design Project for Yanque

2019년 2월

동서대학교 일반대학원

디자인학과

ANDREA LUCCIA BEROLATTI GONZALES

양케 지역의 소셜디자인을 통한 안데스 문양 문화상품 개발 작품연구

Development of Andean Icon Products as a Social Design Project for Yanque

지도교수 김 수 화

이 논문을 석사학위논문으로 제출함

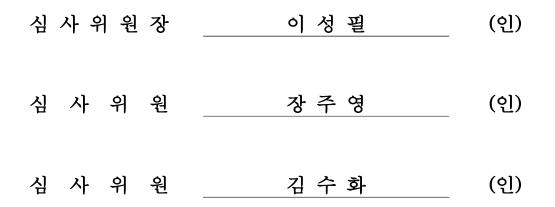
2019년 2월

동서대학교 일반대학원

디자인학과

ANDREA LUCCIA BEROLATTI GONZALES

안드레아루치아의 석사학위논문을 인준함



동서대학교 일반대학원

디자인학과

2019년 2월

Table of Contents

List of Tables	i
List of Figures	ii
List of Photos	iii
국 문 초 록	·v
작 품 콘 셉 트	· vii
I. Introduction	··· 1
1. Research Background and Objective	1
2. Research Methodology and Scope	3
II. Andean Iconography	6
1. Andean Iconography Literature Research and Definition	6
2. Andean Iconography Three Components	9
2.1. Three Languages in Andean Iconography	9
2.1.1. Visual Language	10
2.1.2. Aesthetics Language	11
2.1.3. Symbolic Language	12
2.1.4. Andean Iconography Languages Comparison	13
2.2. Symbolic Composition in Andean Iconography	14
2.2.1. Geometric Composition	15
2.2.2. Harmonic Tracing	16
2.2.3. Modular Composition	17
2.2.4. Figurative Geometric	17
2.3. Symbolism in Andean Iconography	18
2.3.1. Cosmovision	19
2.3.2. Cosmogony ·····	19
2.3.3. Cosmology	20

3. Categories in Andean Iconography	20
4. Summary ·····	24
III. Social Design	· 26
1. Social Design Definition and Concept	26
2. Social Design Literature Research	28
3. Case Analysis	30
4. Social Design Responsibility	35
5. Social Design Stakeholders	35
6. Social Design Relevant Methods	36
7. Innovation Design Relevant Methods	41
8. Summary	43
IV. Social Design Project	·· 45
1. Background Information	45
1.1. Project motivation: Madre Antonia Kayser	46
1.2. Evaluation of Yanque	47
1.3. Project Questions	55
1.4. Artisans in Yanque	56
1.5. Andean Iconography in Yanque	57
1.6. Summary ·····	59
2. Project Prototype ······	60
2.1. Project Social Design Methodology	60
2.2. Project Organization and Stakeholders	64
2.3. Social Design Project Process in Yanque	65
2.4. Andean Iconography Study in Project	78
3. Survey	88
3.1. Artisans Interview	88
3.2. Survey	90

3.3. Summary and Results	92
V. Conclusion	95
1. Conclusion	95
Reference	
Abstract	

List of Tables

[Table 1] The process of Research	5
[Table 2] Literature Research on Andean Iconography	• 7
[Table 3] Visual Language	11
[Table 4] Plastic Language	12
[Table 5] Andean Iconography Languages Comparison	13
[Table 6] Geometric Composition	16
[Table 7] Categories in Andean Iconography by Media	21
[Table 8] Categories in Andean Iconography by Subject	22
[Table 9] Andean Iconography Three Components	25
[Table 10] Social Design Precedent Research	28
[Table 11] Average Climate by month in Yanque	48
[Table 12] Leading Indicators in Yanque	49
[Table 13] Population and Houses Harmed in the earthquake	53
[Table 14] Tourist visit Yanque from 2016 to 2018	55
[Table 15] Andean Iconography in Yanque	58
[Table 16] Logo Languages Study	80
[Table 17] Project Prototypes Results	81
[Table 18] Study of Andean Iconography in Products	85
[Table 19] Interviews with artisans	88
[Table 20] Survey with buyers	90

List of Figures

[Figure	1] Mountain Ranges of The Andes	6
[Figure	2] The Southern Cross and the relation sign of the "bi-cephalic serpent"	13
[Figure	3] Diagonal, Tawa, Cross and Spiral	15
[Figure	4] Binary Harrmonic Tracing	17
[Figure	5] Chanchay Modular Composition	17
[Figure	6] Bi-cephalic serpent	18
[Figure	7] Nazca, Central Coast	19
[Figure	8] Stone, Tiahuanaco	20
[Figure	9] The Andean Croix	20
[Figure	10] Social Design Stakeholders	36
[Figure	11] Chart Hear, Create, Deliver steps of IDEO	37
[Figure	12] Example about Drivers of Change Steps	38
[Figure	13] The CAT Action Map	40
[Figure	14] Standford University Bootcamp Bootleg	41
[Figure	15] AC4D Non-linear process of design	43
[Figure	16] Map of the Location of the district of Yanque, in Caylloma, Arequipa	48
[Figure	17] Project Methodology in Yanque	60
[Figure	18] First Phase: Insertion, approach, community interchange and understand	61
[Figure	19] Second Phase: Design, guide and learn, community interchange, ideas and criteria	62
[Figure	20] Third Phase: Deliver, create prototypes, community interchange, test and improve	63
[Figure	21] Stakeholders in Yanque	64
[Figure	22] Map of Yanque and current meeting places	66
[Figure	23] Brand Guidelines for El Arte de Bordar en el Colca	79
[Figure	24] Tertiary Harrmonic Tracing in Logo	80

List of Photos

[Photo	1] Woman Using the Water Wheel	30
[Photo	2] Food for Education Program	31
[Photo	3] Ilma Primary School Building	32
[Photo	4] Mayan worker using traditional techniques	33
[Photo	5] Gira-dora in Peru	34
[Photo	6] Madre Antonia Kayser and people from Yanque village	46
[Photo	7] El Arte de Bordar en el Colca Artesanal Workshop	66
[Pho to	8] Bordadores del Colca Taller and Handicraft Market	67
[Pho to	9] Church and houses in collapse situation	67
[Pho to	10] Houses and streets of Yanque	68
[Pho to	11] Streets in Yanque	68
[Pho to	12] Community Interchange Meeting	69
[Photo	13] Artisans participating in a interchange meeting	70
[Photo	14] Community Interchange Meeting	71
[Pho to	15] Community Interchange Meeting	72
[Pho to	16] Logo of the Brand	- 73
[Pho to	17] Justina, one of the Artisans	73
[Photo	18] Felipe, one of the artisans	74
[Photo	19] Carmen, one of the artisans	74
[Photo	20] Creation of a Facebook fan page	75
[Pho to	21] Prototypes examples	75
[Pho to	22] Creation of an Online Store	76
[Photo	23] Seeing the prototypes and debating	77
[Photo	24] Last Community Interchange Meeting	77
[Photo	25] Revising the prototypes	78

국 문 초 록

양케 지역의 소셜디자인을 통한 안데스 문양 문화상품 개발 작품연구

본 연구는 안데스 문양 문화상품의 개발을 통해 양케 지역의 지역 문제에 도움이 되고 이를 해결하기 위해 소셜디자인 방법론을 채택했다. 연구에는 두 가지 주요 목적이 있는데, 첫 번째 목적은 시각적 및 그래픽 관점에서 안데스 도상을 연구하는데 있고, 두 번째 목적은 선정된 지역을 위한 특정한 소셜디자인 모델을 개발하는 방법론으로서의 소셜디자인 연구이다.

안데스 도상의 첫 번째 목적과 관련하여, 원리, 의미 및 정의를 이해하기 위해 문헌 검토를 수행한다. 이것은 도상의 시각적 특성에 관한 정보의 공백으로 이어진다. 이를 위해 언어, 상 징적 구성 및 안데스 도상의 상징주의로 정의되는, 시각적 이해의 세 가지 구성요소를 확립하 는 구조 모델을 창출한. 이러한 구성요소는 소셜디자인 프로젝트의 맥락에서 양케의 장인 공 동체와 공동으로 안데스 도상 제품을 개발하기 위한 바탕이 되었다.

본 연구의 두 번째 목적은 공동 창작을 위한 지역사회 지향 프로젝트를 개발하는데 사용되는 방법론으로서의 소설디자인 연구이다. 이를 위해, 소셜디자인의 정의 및 개념, 이 방법론을 사용한 프로젝트의 사례 분석, 투자자에 관한 연구, 그리고 소셜디자인 및 혁신 디자인을 참조하는 관련 방법론과 관련이 있는 문헌 조사를 수행한다. 그 결과, 연구자는 양케 지역을 위한 최초의 소셜디자인 모델 및 투자자 모델을 개발할 수 있다. 이러한 모델을 양케 지역의 장인 공동체와 공동으로 개발한 소셜디자인 프로젝트의 구조로 활용한다.

이 지역은 자신의 전통 문화로부터 분리되어 있기 때문에 선정되었다. 양케에서의 교육은 주로 식민지로부터 독립 후의 역사와 문화에 초점을 맞추는데, 이것이 선조로부터 물려 받은 안데스 전통 문화의 특성을 무시하고 가치를 낮춰 보는 데 원인이 된다. 젊은 세대는 이러한 가치에 대해 교육받지 못했기 때문에 선조의 전통과 문화를 계속 이어 나가는 데 관심이 없다 다른 한편으로는, 빈곤율이 증가하는 것인데, 양케 인구의 절반 이상이 빈곤선 아래에서 살아 가고 있다. 이러한 상황은, 2016년에 발생한 지진으로 지역 장인들의 주요 수입원이었던 지역 의 관광업이 타격을 받은 이후 더욱 악화되었다.

본 연구는, 이러한 상황에 비추어 안데스 도상 및 문화에 대한 인지와 인식을 확장하는 것 을 목표로 하였다. 또한, 장인의 경제 활동의 발전에 기여하고자 합니다. 이는 안데스 도상 구

vii

성요소를 사용하여 안데스 도상 제품을 개발함으로써 가능할 것이다.

본 연구에서는 지역사회에서 자기 문화에 대한 자부심과 긍지도 개선하고자 하였는데, 이는 지역사회를 위해 특별히 개발된 소셜디자인 및 투자자 모델을 사용하여 이룰 수 있다. 이러한 모델을 향후 프로젝트에도 참조로 활용할 수 있다.

키워드: 소셜디자인, 안테스 문양, 문화상품, 소셜디자인 프로젝트, 양케

작품콘셉트

These products where developed with a Social Design methodology that evolved into a community project in the Andes of Peru. The conclusion of the Project resulted in twelve product prototypes that where designed in the Community Interchange meetings and hand made by the community artisans from Yanque.

이러한 콘셉트 하에 제작된 작품은 다음과 같다.

[작품 1] Yanque Community, <Shoulder Bag>, Fabric and Embroidery, 2018 [작품 2] Yanque Community, <Hand Purse>, Fabric and Embroidery, 2018 [작품 3] Yanque Community, <Table path>, Fabric and Embroidery, 2018 [작품 4] Yanque Community, <Pouch>, Fabric and Embroidery, 2018 [작품 5] Yanque Community, <Placemat>, Fabric and Embroidery, 2018 [작품 6] Yanque Community, <Cellphone Pouch>, Fabric and Embroidery, 2018 [작품 7] Yanque Community, <Cellphone Pouch>, Fabric and Embroidery, 2018 [작품 7] Yanque Community, <Cellphone Pouch>, Fabric and Embroidery, 2018 [작품 7] Yanque Community, <Cellphone Pouch>, Fabric and Embroidery, 2018 [작품 8] Yanque Community, <Coin purse>, Fabric and Embroidery, 2018 [작품 9] Yanque Community, <Key chain>, Fabric and Embroidery, 2018 [작품 10] Yanque Community, <Bracelet>, Fabric and Embroidery, 2018 [작품 11] Yanque Community, <Cushion>, Fabric and Embroidery, 2018



[작품 1]Yanque Community, <Shoulder Bag>, Fabric and Embroidery, 2018

- 1. Title : <Shoulder Bag>
- 2. Format : Fabric and Embroidery
- 3. Size : 24cm x 19cm
- 4. Year of Production : 2018

5. Description : Embroidery in color is blue and green on a black base , using iconography of birds and flowers



[작품 2] Yanque Community, <Hand Purse>, Fabric and Embroidery, 2018

- 1. Title : <Hand Purse>
- 2. Format : Fabric and Embroidery
- 3. Size : 17,5 cm 26cm
- 4. Year of Production : 2018

5. Description : Embroidered in shades fuchsias on black base , using iconography of flowers, birds and fish.



[작품 3]] Yanque Community, <Table Path>, Fabric and Embroidery, 2018

- 1. Title : <Table Path>
- $\label{eq:approximation} \textbf{2. Format} : Fabric and Embroidery$
- 3. Size : 120cm x 40cm
- 4. Year of Production : 2018

5. Description : Embroidered in the colors black, green, purple and yellow; on cream white base , using iconography of flowers , birds and fish.



[작품 4] Yanque Community, <Pouch>, Fabric and Embroidery, 2018

- 1. Title : <Pouch>
- 2. Format : Fabric and Embroidery
- 3. Size : 18cm x 11cm
- 4. Year of Production : 2018

5. Description : Embroidered in blue colors on black base color, using the iconography of the Condor (bird) and different s lines.



[작품 5] Yanque Community, <Placemat>, Fabric and Embroidery, 2018

- 1. Title : < Placemat>
- 2. Format : Fabric and Embroidery
- 3. Size : 19cm diameter
- 4. Year of Production : 2018

5. Description : To use on tables; embroidered in fuchsia color on a white base, using iconography of flowers, birds and fish .



[작품 6] Yanque Community, <Cellphone Pouch>, Fabric and Embroidery, 2018

- 1. Title : <Cellphone Pouch>
- 2. Format : Fabric and Embroidery
- 3. Size : 17,5cm x 10cm
- 4. Year of Production : 2018

5. Description : Embroidered in green and maroons on white base, using the iconography of the Condor (bird) and flowers.



[작품 7] Yanque Community, <Headband>, Fabric and Embroidery, 2018

- 1. Title : <Headband>
- 2. Format : Fabric and Embroidery
- 3. Size : 15 cm diameter
- 4. Year of Production : 2018

5. Description : Embroidered in shades of green, blue, brown, yellow, orange and white on a black base; using the iconography of flowers, birds and fish.



[작품 8] Yanque Community, <Coin purse>, Fabric and Embroidery, 2018

- 1.Title : <Coin Purse>
- 2. Format : Fabric and Embroidery
- 3. Size : 10cm x 9.5 cm
- 4. Year of Production : 2018

5. Description : Embroidered in colors, brown, green, yellow and white, on a black base, using the iconography of alpaca and flowers.



[작품 9] Yanque Community, <Keychain>, Fabric and Embroidery, 2018

- 1. Title : <Keychain>
- 2. Format : Fabric and Embroidery
- 3. Size : 6cm
- 4. Year of Production : 2018
- 5. Description :Embroidered on one side in blue tones, on a black base, using the iconography of flowers.



[작품 10] Yanque Community, <Bracelet>, Fabric and Embroidery, 2018

- 1. Title : <Bracelet>
- 2. Format : Fabric and Embroidery
- 3. Size : 16 cm x 1.8 cm
- 4. Year of Production : 2018

5. Description : Embroidered in blue and fuchsia colors on black and white bases respectively, using the iconography of flowers.



[작품 11] Yanque Community, < Earings>, Fabric and Embroidery, 2018

- 1. Title : <Earings>
- 2. Format : Fabric and Embroidery
- 3. Size : 3.5 cm diameter
- 4. Year of Production : 2018

5. Description :Embroidered on one side in blue tones, on a black base, using the iconography of flowers.



[작품 12] Yanque Community, <Cushion>, Fabric and Embroidery, 2018

- 1. Title : <Cushion>
- 2. Format : Fabric and Embroidery
- 3. Size : 38cm x 38cm
- 4. Year of Production : 2018

5. Description : For cushion decorative, embroidered in green colors on a white base, using vegetation iconography.

I. Introduction

1. Research Background and Objective

This study adopts a Social Design Model to benefit and improve a local problematic entailing the usage of Andean Iconography Components. The research has two main purposes, the first one refers to the study of Andean Iconography. With the intention of compassing a visual understanding of Andean Iconography Components. Whereas the second purpose is the study related to Social Design. With the intention of developing a Social Design Model and Stakeholders Model.

The result of this research is to carry out a specific Social Design Project for Yanque, a rural area in Peru, and to use this methodology to design and build different prototypes of tourism products using Andean Iconography visual Components. The location was chosen due to the main conflicts and adversities that this area faces.

Currently, in the Yanque village, education focuses mainly on post-colonial history and culture; which contributes substantially to the matter that the values of traditional ancestral culture of the Andes is being disregarded and underappreciated, since young generations are not educated, and this does not encourage interest in continuing with the traditions of their parents and ancestors of their culture.¹

On the other hand, there is an increasing percentage of poverty, more than half of Yanque's population lives below the poverty line², which refers to the minimum level of income that is considered adequate in developing countries like Peru.

Furthermore, one of the main incomes of the locality is Tourism, however a strong earthquake hit the area in the year 2016, this demised strongly the arrival of tourist to the area, resulting in higher percentages of poverty, also the lack of tourist appreciating their cultural aspects, values and

¹ Luis Enrique Alvizuri, The Andean World and Contemporary Challenges, Lima, 2008, pp.2

 ² INEI, National Institute of Statistics and Informatics, *Censo Nacional Económico*, Yanque First Important Statistics, 2018

traditions derived in a lack of cultural appreciation and even a stronger detachment from their traditional culture and values.

In order to improve the current problematics in the area of Yanque the research encompasses two purposes.

The first one refers to the study of theoretical background of Andean Iconography from the visual design angle. This research is elaborated with the intention of developing a structure model, referring to the visual Components of Andean Iconography, which are Language, Symbolism and Composition.

This study can then result on the heightening of the appreciation and principally the recognition of the visual and symbolic qualities of Andean culture. The usage of this knowledge to further structure the community of Artisans through the medium of a Brand. Likewise, further extend the awareness and knowledge of the embroidery and Andean Iconography in the endeavor of the artisan. Also, the improved understanding of the iconography can benefit the visual design of the artisans product.

All the above points can help to improve the quality of craft work, and increase the positive and symbolic perception of the value of this craft; At the same time, its diffusion through different media can increase the commercial scope that artisans currently have and in this way generate more regular income, which could then strengthen this activity and help reduce the poverty situation that many people live in. the artisan community in Yanque.

The second purpose of the research is the study of Social Design. For this a Precedents research is conducted on the subjects of Social Design, and case analysis of projects that used Social Design as a methodology to be able to have a clear definition of Social Design as a methodology, its concept and the responsibility of Social Design. In addition, the definition of Stakeholders and Social Design Methodologies are studied to be able to encompass the first Social Design Model and stakeholders' model specific for the area of Yanque.

The goal is to generate a contribution to the current adverse situation, through the use of a particular Social Design Model designed especially for the artisans of the community in Yanque with the purpose of developing a project for the elaboration of tourist related products. This model where the community artisans are the protagonists of the project can favor in the community the sentiment of self-worth and pride regarding their Andean Culture, also a study on stakeholders to implant an stakeholder's model specific for the Project to improve the communication with the relevant collaborators and stablish a sense of community between them.

2. Research Methodology and Scope

The main topic of this study is to adopt a Social Design Model to benefit and improve a local problematic entailing the usage of Andean Iconography as a Design Frame tool for the elaboration of tourist related products:

I. Introduction. Explains the background of the project, the objective and the structure of the methodology use.

II. Andean Iconograph Design Frame for Tourist Products. Literature review to adequately understand the principles and meaning of Andean Iconography and stablish Three Components of visual comprehension defining the languages, the composition and the symbolism of Andean Iconography.

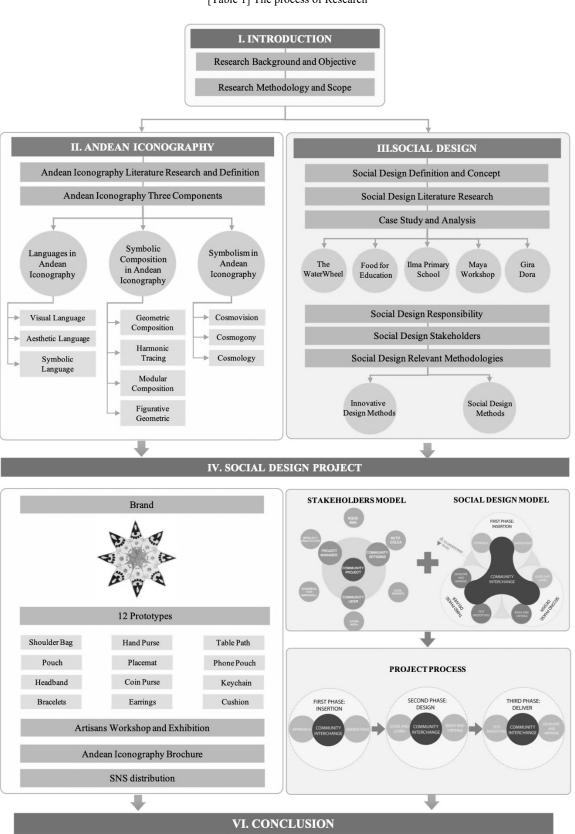
III. Social Design Precedent Research and Case Study. The precedent research of Social Design, the concept of Social Design, the responsibility as well as five Case Study and Analysis to be the theoretical support of the project.

IV. Social Design Project Study: The definitions and importance of stakeholders as well as relevant methodologies are studied to be able to develop a Frame that can help us develop an specific Social Design Model for Yanque.

V. Social Design Project Using Andean Iconography Design Frame. With all the research used as a foundation frame, a Social Design Model is designed as well as an specific Stakeholders group is selected to be able to execute the project with local artisans entailing the design tools from Andean Iconography for materializing the handicraft products prototypes.

VI. Conclusion. This summarizes the results of the project and refers to the strengths and weaknesses of the research.

This study will focus on developing a Social Design Project specific for the location of Yanque using previous research study on Social Design concepts, stakeholders and as a Methodology. In addition to this, the visual facets of Andean Iconography are studied, and a comprehension tool is developed on the aspects of composition, symbolism and language. This will allow the researcher to design a specific Social Design Model for the community of Yanque as well as Three Components of Andean Iconography. As a result, this will serve as tools for the developing of the first Social Design Project in the community of Yanque with the purpose of the elaboration of tourist related products. Furthermore, the proposed project will help the artisan's community to improve their current adverse situation and conceivably improve their quality of life.



II. Andean Iconography

1. Andean Iconography Literature Research and Definition

Andean Iconography is comprised of two words, Andean and Iconography, to begin with the research we should first understand the meaning of these two words. It is important to give a detailed definition to this concept, as it can be misinterpreted.

Iconography has different definitions for the purpose of this research it is interpreted as follows, Iconography refers not to a picture or an image, but to the meaning attached to this image. Therefore, the images Andean Iconography become symbolic forms that can be read and interpreted. This can happen because this image has a meaning different than that of a work of art.

When we talk about Andes, we refer to the mountain system of western South American that extends for more than 8,000 km from Venezuela to Tierra del Fuego, in this case it refers to the civilizations that occupied this area dating back to 3200 BCE, and before the arrival of the Spain colonization



[Figure 1] Mountain Ranges of The Andes

In the Figure 1, we can see the Andes Mountain Ranges from north to south of the continent where the Andean civilizations grew and conquered, is in this sector and by these civilizations that Andean Iconography is taken from, the most important civilizations that habited this area are the Chimus, the Mochicas and in the last period the Inca Empire. Therefore, we can define Andean Iconography as the meaning of the symbols presented by the Andean Cultures, to get a better understanding of this term we will study the definition of relevant literature who have written about Andean Iconography.

01	An Introduction To the Semiotic of Precolumbian Andean Design.			
Author	Zadir Milla Euribe	Year	1990	CONCYTEC
Summary	It presents the conceptual universe that frames the aesthetic and semiological explanation of the symbolism that constitutes the deep and permanent expression of Andean Cosmological Thinking.			
02		Introduction to An	dean Iconography 1	
Author	Jesus Ruiz Durand	Year	2004	IDESI
Summary	Sample of Andean Iconography referred to the departments of Ayacucho, Cusco and Puno organized with thematic criteria, not chronological, whose initial purpose is aimed at serving as reference and visual documentation of our visual cultural heritage for plastic artists.			
03		Iconography of	Andean thought	
Author	Cristóbal Campana Delgado	Year	2014	UPAO
Summary	Study on ways in which the old prehispanic societies of Peru could present their thought through an iconography rich in a symbolism present in different times and contexts, as they are found with specific nuances. Understanding the thought process of iconography design in pre-hispanic societies which helps understanding the comsomoligical compositions.			
04	Andean iconogr	aphy interpretation of	symbolism in ancient	Peruvian fabrics
Author	Uwe Carlson	Year	2011	Publicacion Privada
Summary	The origin of symbolism. The long road to the south. Modifications of a leitmotiv. Diversity and variations The eye shows the soul. Attributive expression. Deity combined, Symbolism added. Feline perpetuals. The birds of the coast. Pars pro toto. Chavín - Chancay. The Incas and the end of Tahuantinsuyo. Understanding the possible interpretations of Andean Iconogra- phy			
05		Ayni, Paleosemiotics	Of The Sacred Spaces	
Author	Carlos Milla Villena	Year	2007	Abya Yala.
Summary	In this book, the author unveils the Icon of the "Crossed Hands" as an expression of the Law of Reciprocity of the "Ayni", a unique mandate handed down through the centuries by the millennial Hamawthas so that our Andean Culture remains a life option Serves to the researcher in the understanding the importance in reciprocity culture and how is this portrayed in design of Andean iconography.			
06		Genesis of the	Andean culture	
Author	Carlos Milla Villena	Year	2004	Publicacion Privada
Summary	In Genesis of Andean Culture, the author studies the ancient and sacred Chakana or Andean Cross. This publication gives rise to a spiral of deep knowledge about its use and benefits, in many aspects of the individual and community life of the Andean peoples. Analyze and under- stand the Chakana or Andean Cross as the basic image of Andean iconography.			

[Table 2] Literature Research on Andean Iconography

Milla Villena defines Andean Iconography as "The Andean Iconography has to do with design, graphics, figures, symbols and stylized colors used by the original peoples of the Andean culture, as a form of communication. For contemporary archeology, pre-Inca and Inca icons, commonly defined as Peruvian iconography, is understood as a form of communication, a tool of representation through which an enormous amount of information about pre-Hispanic cultures was transmitted, for that reason, From this discipline, it is common to discuss the concept of style that is defined as non-verbal or visual communication."³ In his words we can interpret that Andean Iconography is a form of communication which is used to represent and transmit information about pre-Hispanic cultures.

Ruiz defines Andean Iconography as "The visual language convened by these images presents a latent testimony of a complex and rich universe of cosmogony meanings and social organization, aesthetic codes and structures of mathematical thought. On the other hand, they represent a vehicle of political-religious functionality, in addition to their eloquent documentary and archaeological values"⁴ from his words we understand that Andean Iconography has a deep thoughtfully meaning and was used as a tool in political-religious functionality.

Last we study the definition of Uwe Carlson "Art in the ancient Peruvian cultures has not been an end in itself, but rather generally served but not in exclusive mode, to express linked issues to their religiosity. Especially the art of textiles is impregnated with symbols religious. The artistic image of the ancient Peruvian divine kingdom was extremely diverse and very ingenious access to these religious codes means that the treatment of weavings and other relics is a fascination."⁵ From there we realize that Andean Iconography is a language and a code not a pure art form.

Therefore, Andean Iconography refers to the symbolic representation in a graphic form of different characters and images, this was done and is still in practice in the mountain range of South America in ancient cultures and in today's indigenous cultures. By different research's Andean Iconography is interpreted as an ancient way of communication. In a society where there was no written text or

³ Carlos Milla Villena, About Andean Iconography Definitiom,, guidoancori.com, 2018. 05. 1.

⁴ Jesus Ruiz Durand, Introduction to Andean Iconography, IDESI, 2004, p.4

⁵ Uwe Carlson, *The divine image and the religious symbolism in Textiles of Ancient Peru*, Center of Textile Research, 2017, p.7

letters invented yet, iconography was used to give messages, tell stories, represent spiritual beings and many others. With this, one can understand Andean Iconography as a language.

2. Andean Iconography Three Components

When we understand Andean Iconography as a Language, we can see that this language has several geometric, visual and compositional rules. As mentioned by Ruiz in the book Introduction to Andean Iconography "⁶The visual language convened by these images presents a latent testimony of a complex and rich universe of cosmogony meanings and social organization, aesthetic codes and structures of mathematical thought. On the other hand, they represent a vehicle of political-religious functionality, in addition to their eloquent documentary and archaeological values"

In this part we will study the different languages, visual messages and composition rules that where important part of the Andean Iconography and that will help us understand it. Every icon in the traditional iconography in Andean Culture has a visual message or language that is divided into three levels specified by Milla Euribe⁷. Andean Iconography can then be studied in deconstructed using three methods of understanding. First, we understand the language it is using, then the rules of composition, last, we interpret the meaning via the symbolism it portrays.

2.1. Three Languages in Andean Iconography

Andean Iconography uses three main languages, these are Visual Language, Aesthetic Language and Symbolic Language8. Each icon in Andean iconography can be described in each one of these categories. In his words "Understood as a means of communication, every language is made up of a universe of signs and symbols, structured by a syntax through which the visual speech is organized"9 This refers to how we can use this languages or codes to understand the meanings and connotations

⁶ Durand, op.cit., pp. 10

⁷ Milla Euribe, Zadir, An Introduction to the Semiotic of Precolombian Andean Design, Lima, Amaru Wayra, 2008, pp.18-26

⁹ Zadir, op.cit, pp.18-26

behind every visual message of Andean Iconography.

Milla expresses that "The decoding of the linguistic values corresponding to each level of expression, although they order the semiotic analysis, must be understood as a methodological process, since in reality it is a unique and indissoluble discourse"¹⁰ In spite of the existence of symbols in the Andean iconography that have a meaning of individual form; Symbols that are composed of two or more elements have their own reading and meaning.

2.1.1. Visual Language

As early as humanity existence, drawings, signs, lines and others have been used as a communication tool that were used to convey ideas and concepts, this is what is called Visual Language. In Visual Language, morphological and syntactic aspects define the graphic universe of the image. It is what we can observe in an icon and then proceed to use this as a methodology for interpretation. This is used to encode meaning trough shapes, lines and signs.

In many of the Andean Iconography images we can interpret it by separating their parts therefore we can perceive that there is more than one component to be able to find a proper definition, ancestral cultures used to insert different components into one icon to be able to give a deeper symbolism. We can perceive this in Table 2, where one image represents three different objects and its their combination which gives the true meaning and symbolism to the icon. In this case the Visual Language is a morphological image.

¹⁰ Ibid, pp.18-26

Image	Meaning	Visual Language
The Southern Cross and the relation sign of the "bi-cephalic serpent"	The serpent Amaru (serpent in Quechua) is fundamental in Andean cosmology. It symbol- izes the water, the force of lightning, continuity, the milky way, the rivers, the sa- cred paths, the union between sky and earth. It is an animal that with its force crosses worlds, seeking the totalitarian balance.	The Earth.
		The bicephalic serpent.
		The southern cross, stars, the sky.

[Table 3] Visual Language

This image has three subjects: a rectangle that signifies the earth, a Z shape that signifies a double head serpent, and finally four dots that mean four stars that form a Cross. Like this, one can use Visual language to interpret the separate meanings of an image.

2.1.2. Aesthetics Language

Plastic Language or aesthetics language is defined into two categories. With this language one can interpret if an image is figurative or abstract in its stylistic character. In this, figurative means that the forms represented are recognizable from life, and that their characteristics are visual and clear: while abstract refers to a more conceptual not necessarily physical representation of something.

We can see this with an example in [Table 4], two images that represent the same animal, this cannot be perceived at first sight because they both use a different Aesthetic Language. While one image is more literal and specific, the other is abstract.

Image	Aesthetic Language	Meaning
Nazca, Bi-cephalic serpent	The animal is fig- urative , one can de- note the two faces, the eyes and the mouths.	Both of these images repre- sent the bi-cephalic serpent, the serpent, symbolizes the water, the force of light- ning, continuity, the milky way, the rivers, the sacred paths, the union between sky and earth.
The bi-cephalic serpent	The shape is ab - stract and can only be understand trough a deeper study.	

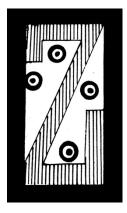
[Table 4] Plastic Language

In these two images we can see that the same mythical animal is being represented, this is the bi/cephalic serpent. In Image 2, the animal is figurative, one can denote the two faces, the eyes and the mouths, in Image 3 the shape is abstract and can only be understand trough a deeper study. Like this we can understand that the Aesthetic Language has two representations.

2.1.3. Symbolic Language

This language refers to the use of symbols to communicate a greater meaning. Symbolic Language uses symbolic dialog, symbols and content which determines if it is representative, creative, interpretative character and form of visual expression. We will again use the Figure 6 to understand better the meaning of the Symbolic Language.

In this image the symbolic language refers to the deeper meaning of its symbols, per example; the serpent Amaru (serpent in Quechua) is fundamental in Andean cosmology and iconography.



[Figure 2] The Southern Cross and the relation sign of the "bi-cephalic serpent"

It symbolizes the water, the force of lightning, continuity, the milky way, the rivers, the sacred paths, the union between sky and earth. It is an animal that with its force crosses worlds, seeking the totalitarian balance.

2.1.4. Andean Iconography Languages Comparison

Name	Image	Visual Language	Aesthetics Lan-	Symbolic Lan-
			guage	guage
Bi-cephalic serpent		In this image we can perceive an animal shape with two heads and one body.	In this iconography the images have visi- ble physical repre- sentations of eyes, scams, mouths and other therefore we can assume is a fig- urative representa- tion.	The serpent amaru symbolizes the water, the force of lightning, continu- ity, the rivers, the sacred paths, the union between sky and earth.
Bi-cephalic serpent	\mathbf{O}	In this image we can perceive a rectangu- lar shape with two sides.	This image repre- sents the same as previous images ex- cept in this one, is not possible to easily read the concept be- hind the drawings. Therefore this image is an abstract repre- sentation.	The serpent amaru symbolizes the water, the force of lightning, continu- ity, the rivers, the sacred paths, the union between sky and earth.

[Table 5] Andean I	lconography I	Languages C	omparison
--------------------	---------------	-------------	-----------

Feline Deity.	In this image we can perceive an animal shape with one head, four foots and a tail.	As we can see in this iconography the im- ages has visible physical representa- tions of eyes, foots, a tale, mouths and other therefore we can assume is a fig- urative representa-	Represented a su- preme earthly, subterranean and aerial being linked to strategy, strength, intelli- gence, political government, founding father of
Feline Deity.	In this image we can perceive a rectangu- lar shape with two rectangular shapes inside.	tion. In this image, is not possible to easily read the concept be- hind the drawings. Therefore this image is an abstract repre- sentation.	all things. Represented a su- preme earthly, subterranean and aerial being linked to strategy, strength, intelli- gence, political government, founding father of all things.
Modular Fish.	In this image we can perceive an animal shape that is clearly two fishes with mouth, eyes and tail.	As we can see in this iconography the im- ages has visible physical representa- tions of eyes, scams, therefore we can as- sume is a figurative representation.	The fish repre- sented the duality of decisions, the two paths in life.
Modular Fish.	In this image we can perceive abstract lines that create di- agonals and trian- gules.	This image repre- sents the same as previous images ex- cept in this one, is not possible to easily read the concept be- hind the drawings. Therefore this image is an abstract repre- sentation.	The fish repre- sented the duality of decisions, the two paths in life.

2.2. Symbolic Composition in Andean Iconography

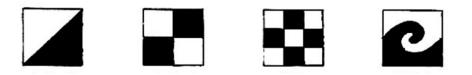
The composition in Andean thought is given by the merge of visual, plastic and symbolic aspects, that gives us the Symbolic Composition. Symbolic Composition represents myths and rites linked to ceremonial and agricultural cyclical calendars. It defines several factors of composition associated

with symbolism in Andean Iconography, for this research, the ones that refer specifically to visual composition are chosen to select four codes that refer to the symbolic composition in Andean Iconography, additionally, the Formation Rules referring to the four basic codes of Geometric composition of the study made by Zadir are added to extend and improve the Symbolic Composition aspects.

This is separated in four types of codes, Geometric Iconology, Harmonic Tracing, Modular Composition and Figurative Geometric.

2.2.1. Geometric Composition

The geometry in the Andean iconography is formed by two main codes. The first speaks of order and proportion, for example "unity" "duality" "bipartition" "tripartition". The second speaks of the definition of these forms, as the "square" "diagonal" "rhombus" "spiral" "cross". Correspondently as we can see in the Figure 3 the Diagonal refers to the unity, the Tawa refers to the duality, the Cross represents the tripartitions and the Spiral the bipartition.



[Figure 3] Diagonal, Tawa, Cross and Spiral

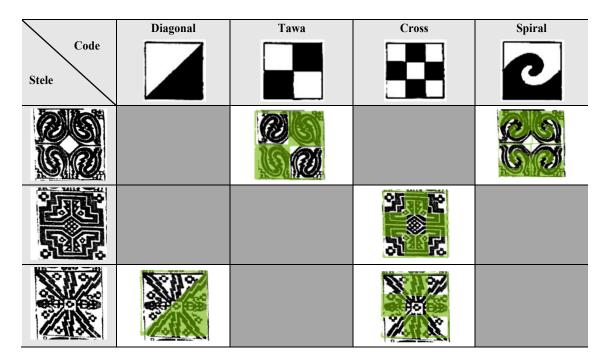
These four basic codes are formed by "successive diagonals of an initial square"¹¹ In which the mathematical values are translated to geometric forms, this is theorized to have originated in Andean Astronomy, in an attempt to draw the lines of the movement of the star. These same principals are used and represented in the architecture of temples and astronomical observatories.¹²

To understand this, we will use the four main elements of Andean Iconography to process an ancient

¹¹ Zadir, op.cit, pp.18-26

¹² Carlos Milla Villena, Genesis of Andean Culture, CAP, 1983, pp. 44-51

Lithic Stele, from the Arapa-Tiahuanaco that represents the basic structures of the geometric iconology.



[Table 6] Geometric Composition

As demonstrated in [Table 6] above, the steles use this four codes or guides as a base for their composition. This type of Andean Iconography Composition is found mostly in lithic steles, or religious, spiritual and symbolic drawings found in long, tall rectangular shaped rocks that had this signs or symbols carved into them.

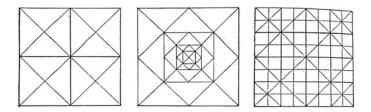
2.2.2. Harmonic Tracing

In Andean Symbolic Geometry all process of harmonious formation comes from the square. In this way we develop other forms like spirals or diagonals. This means that the square is the modulus and formative principle. This Harmonic proportions are divided in Static Proportions and Dynamic Proportions.¹³

¹³ Zadir, op.cit, pp. 15-19

The two most important Static Proportions are the Binary Harmonic Tracing and the Tertiary Harmonic Tracing. This are defined by a "grid" or "construction net" that divides a square, rectangle or circles in a modulation.

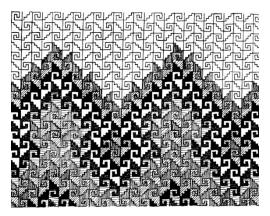
The law of formation of the "harmonic bipartition" is generated by the alternation of rhombs and squares that are successively internalized, and whose linear projections form the mesh of binary construction.



[Figure 4] Binary Harrmonic Tracing

2.2.3. Modular Composition

The modular composition uses the combination of commands and iconographic rhythms to create a design that supports the meaning of its form. It also uses a color scheme that is superimposed on these modular graphic geometries.



[Figure 5] Chanchay Modular Composition

In this example the Chancay Modular Design represents both a graphic and chromatic compositional structure using and altering rhombus as the graphic scheme. With this method of composition one uses a form or a shape that when repeated, it creates another form, this can be repeated infinite times.

This intricate composition was used mostly in textiles that were made for ceremonial clothing as well as for hanging in the walls inside sacred places.

2.2.4. Figurative Geometric

The figurative geometric symbolism comes from the representation of natural forms using the conceptions of symbolic geometry. From the words of Milla, "Figurative geometric symbolism results in the representation of the iconological principles through natural forms that by logical or physical analogies, create relationships between the geometric and figurative signs that in the course of time in history have become conventional"¹⁴

In this example one can see the images on a figurative way, which means that the shapes explain clearly the meaning of the image, in this case we see two heads with eyes and mouths and one body. We can see that it is a serpent with two heads, the composition intention is to show a real representation of what we could see.



[Figure 6] Bi-cephalic serpent

2.3. Symbolism in Andean Iconography

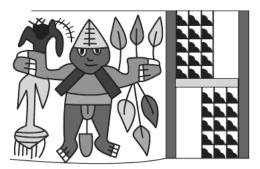
The Andean Iconography can be divided in three types according to its symbolic meaning. This three refer to universes in the Andean World, and the beings that wonder these universes. We have the beings that we recognize from the real world like humans, flora and fauna. Then the ones that belong

¹⁴ Zadir, op.cit, pp. 15-19

to religious and mythological images while at the same time their body compositions are formed by real images from the world, for example a mythical bird, the condor, while being from the real word it has a mythological meaning, so it belongs to these categories. Then we have those that come from calculated reasoning, are all the religious and symbolic images whose shapes don't come referenced from the real word, but they are made through mathematical and astronomic calculations. This divisions of cosmos are studied by Zadir referring to the study of Icons in his book Introduction to Andean Iconography, where he defines Cosmogony and Cosmovision, while Milla is the author that defines Cosmology in his research's in Andean Iconography.

2.3.1. Cosmovision

Cosmovision refers to the perception of the real universe. It observes the natural and social environment, also called Naturalist Iconography. It shows a stylized habitat of men, animals and plants living together.¹⁵



[Figure 7] Nazca, Central Coast

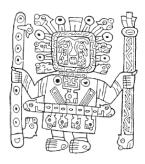
In this image we can clearly see a character performing agriculture in the fields and holding vegetables and next to it two crops of food. This was an everyday activity for the Andean cultures in the Central coast and the importance of this iconography is to represent real life and quotidianity.

2.3.2. Cosmogony

Cosmogony refer to a philosophical, religious, or mythical explanation of the origin of the universe.

¹⁵ Zadir, op.cit

Explains the origins and power of the natural entities and interprets the religious and mythical concepts¹⁶.

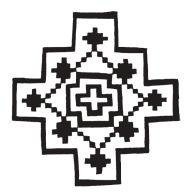


[Figure 8] Stone, Tiahuanaco

In this image for example, it has an anthropomorphic shape in the frontal position with outstretched arms in which it holds two staffs, presents hair in the form of extended serpents and a feline mouth.

2.3.3. Cosmology

Cosmology, it is the branch of astronomy that deals with the general structure and evolution of the universe. In Andean Iconography it expresses the concepts of order, number and rhythm. It is mostly visible on Geometric Iconology and Symbolic Composition of Design.¹⁷



[Figure 9] The Andean Croix

The symbol itself is a reference to the Sun and the Southern Cross, although its shape, which suggests

¹⁶ Zadir, op.cit

a pyramid with stairs on all four sides and circular center, would also have a higher meaning, in the sense of pointing out the union between low and high, earth and sun, man and the higher.

3. Categories in Andean Iconography

The next categories where defined by the media in which they were presented, the images are presented developing a visual language that has to do with its formal visual aspects, with the organization of space and its own internal organization.

3.1. Categories by Media

Iconography divided by the different mediums referring to the material that were used to portray the Andean Icons.

Media	Technique	Period	Example
Textile	Painting, Tapestry	Prehispanic(Paracas y Nasca, Wari, Chancay and Inca) to present.	
Ceramics	Pottery, Sculpture	Prehispanic (Moche, Nazca, Huari, Inca, Tiahuanaco and others) to present	
Wood	Carving, Pyrography	Prehispanic to present.	

Metallic	Sculpture, Modeling, Goldsmith	Prehispanic (Inca to present)	
Stone	Carving	Prehispanic (Inca to present)	图
Walls	Painting	Prehispanic (Inca to present)	
Land	Geoglyph	Prehispanic (Nazca)	

3.2. Categories by Subject

Categories divided by subject, referring to the division made by Durand and based on similar themes and characteristics referring to the subject that it was intended to portray.

Subject	Sub-subject and Meaning	Example
Mythical Divini- ties	Inti, The Sun: Sun and moon divide space and time with its cycles. They are the r gods and organizers of the Andean World. Inti came to the fore well as a result of an expansion triumph Inca politics.	
		v o o o o s

	Cosmogony and Fundamental Symbols: The Andean cycles origi- nated as the foundation of the Cosmogonic, social and political or- ganization materialize in the graphic structure of the Andean design.	
	Felines with Wings: Choqe Chinchay, the constellation of the re- splendent feline of the seven eyes preceded to the existence of the sun according to Andean mythology.	
	Two headed Serpents: Duality and two-dimensionality are key and essence of human life. The serpent is the connection between the earth and the sky, this connection made with balance and equilibrium by the Andean Cross or the Southern Cross which can be seen in the sky at night.	
	Anthropomorphic: Anthropomorphic figures with animal attributes sacred Body, head and human limbs. Jaguar mouths, hair and snake headdresses.	
	Deities with Sticks: Guari first, then Wiracocha, may be the characters of the staffs or scepters omnipresent from Chavín to the Incas with slight or signifi- cant variations visual, stylistic and nominative. The three worlds in- teracting and empowering them.	
	Symbolic Geometry: It is presented as the essential module metaphysical with its basic proportions of which it derive the circle, the grid, the rectangle, the spiral and the stairs. The square is the starting point of the geometry Andean structural	
	Birds: The fruits of the land and sea, animals and plants were represented in a wide variety of stylistic treatments. Depending on the species it will be conceived with a different meaning and symbolic importance.	
Zoomorphic	Felines: The fruits of the land and sea, animals and plants were represented in a wide variety of stylistic treatments. Depending on the species it will be conceived with a different meaning and symbolic importance.	
	Marine Fauna: The fruits of the land and sea, animals and plants were represented in a wide variety of stylistic treatments. Depending on the species it will be conceived with a different meaning and symbolic importance.	

	Insects: The fruits of the land and sea, animals and plants were represented in a wide variety of stylistic treatments. Depending on the species it will be conceived with a different meaning and symbolic importance.	
	Snakes: The fruits of the land and sea, animals and plants were represented in a wide variety of stylistic treatments. Depending on the species it will be conceived with a different meaning and symbolic importance.	
	Fishes: The fruits of the land and sea, animals and plants were represented in a wide variety of stylistic treatments. Depending on the species it will be conceived with a different meaning and symbolic importance.	
	Reptiles, saurians and batrachians: The fruits of the land and sea, animals and plants were represented in a wide variety of stylistic treatments. Depending on the species it will be conceived with a different meaning and symbolic importance.	
Fitomorphic	Mixed Flora: The fruits of the land and sea, animals and plants were represented in a wide variety of stylistic treatments. Depending on the species it will be conceived with a different meaning and symbolic importance.	

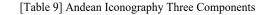
4. Summary

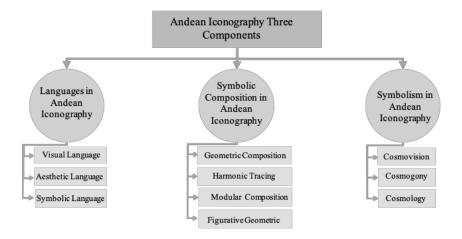
We can understand then that Andean Iconography can be interpreted using three methods or tools, the first one is Andean Iconography Languages, it uses three languages, each Andean iconography graphic can be described in each one of these categories.

Then we can interpret the composition in Andean thinking that is given by the merge of visual, plastic and symbolic aspects, that gives us the Symbolic Composition. Last the Andean Iconography can be divided in three types according to its meaning. The ones that we recognize from the real world, the ones that belong to religious and mythological images and those that come from calculated reasoning.

With this information we can interpret Andean Iconography, this is relevant because with use of

Andean composition rules, meaning and language we can develop products that are truthful to the real meaning and symbolic importance to the Andean culture. Also, we can use this as a tool to bring value to Andean Iconography, because we can explain to the general public that these images are not an artistic representation of reality but actually have a symbolic importance culturally and traditionally.





Andean Iconography is an important part of Andean traditional culture, but this value is getting lost in the new generations. One path to the revalidation and resurgence of Andean Iconography could be the understanding and study of its Design, in this way the importance, relevance and meaning of its content can be explained to younger generations, tourist and another interested public. The further understanding of the deep symbolism in the icons could improve their value, not only to the external buyer but also to the Andean community. It is important that this knowledge is shared with the community and the buyer to extend the appreciation to Andean Iconography.

This leads us to the following questions:

Can the study and understanding of the visual aspects of Andean Iconography help in the appreciation and principally the recognition of the visual and symbolic qualities of Andean culture?

Can this research on Andean Iconography graphic aspects benefit the visual design of the artisan's product?

Can the outside public have a higher value for Andean Iconography meaning and symbolism through the utilization of the study on Andean Icon Products?

III. Social Design

1. Social Design Definition and Concept

The concept of Social Design took strength and began to be mentioned more around the end of the 80's with the publication of the book "Design for the Real World" by Victor Papanek, in this book the author approaches design in a new way, where the designer has the social and moral responsibility to have a design process where there is a strong social involvement.

Is in this book where he says one of the phrases that later will lead other concepts of social design: "Design, if it is to be ecologically responsible and socially responsive, must be revolutionary and radical"¹⁸. With this, a new wave of designers come where designers are in pursuit of joining their humanitarian, political and moral ideas into their works. This principle was and is radical to the development of any design and even any human, as R. Buckminster Fuller said in the 70's: "If humanity does not opt for integrity we are through completely. It is absolutely touch and go. Each one of us could make the difference."¹⁹

Nevertheless, is not correct to define Social Design as a new contrasting way to design, because as Paola Antonelli from the MoMA said: "An artist can choose whether to be responsible towards other human beings or not, but instead a designer has to be, by definition »²⁰. Therefore, us as designers are always responsible towards society, and our designs should always be socially responsible.

This is where the term "Social Design" evolves to design as a way to address social issues. Looking at the definition in the book Looks Good Feels Good is Good by Anne van der Zwaag²¹ : <The term social design seems to point to projects that are principally concerned with or for society. The term also suggests that it mainly concerns design related projects, while todays urgent challenges

¹⁸ Victor Papanek, *Design for the Real World, Human ecology and Social Change*, Academy Chicago Publishers, 1985
19 R. Buckminster, *Critical Path*, Self Publishing 1949

²⁰ Paola Antonelli, Design has been misconstrued as decoration Q+A with Professor Anthony Burk, University of Technology Sydney

²¹ Anne Van Der Zwaag, Looks Good Feels Good Is Good How Social Design Changes Our World, Lecturis, 2014

emphatically require multidisciplinary solutions. For that reason, it makes more sense to think in terms of a mentality rather than a discipline.

When we talk about designing in general, we are finding solutions to address problems and somehow improve an actual situation, when we adhere to this the word "social" we are trying to address specifically social issues through a particular methodology. This is meant as a problem-solving tool that is user-centered and can help us bring improved solutions that are enduring.

We have to understand that Social Design not necessarily will generate a monetary gain, however, it will be false to expect that Social Design will not be productive in the long term. As it was written in The Guardian "Why human centered design matters" <involving the customer throughout the entire design process – effectively co-creating the product or service in question – innovation risk is reduced and the chances of engagement and therefore success are increased. >²² This means that because the community user was closely involved in the design process the engagement is increased, and because the engagement is increased the product or service will be more successful compared to a project designed under other or older methodologies.

Because we could see Social Design as the new norm for Design, its effectiveness long term and its commitment to the user are more profitable in long term views. Currently the world is in need of a Social Design Revolution, similar to a social revolution, in invites to change the current structure of design. First this is achieved by working bottoms up instead of top down, this means as we have previously said, the design is co-created with the community is designed for, instead of being made by a designer who comfortable sits in an office and is not capable of truly understanding the necessities and the reality of the user. Further, social design lacks a centralized leadership, we as designer are not leaders when we use a Social Design method, we are part of a designing team that doesn't have leaders and manages itself by taking advantage of each character particular abilities. Social Design should also be self-organizing, an spontaneous process that grows and arranges responding to positive and negative feedbacks, adapting to provide better results.

²² The Guardian, *Why human centered design matters*, https://www.theguardian.com/media-network/media-network-blog/2014/jan/15/user-centred-design-marketing, 2018.05.11

2. Social Design Literature Research

To better understand the concepts of Social Design a Literature Research was performed trying to find different research that mentions the keywords Social Design specifying this research in important literature books, academic journals and related research.

01	Design For The Real World: Human Ecology and Social Change.			
Author	Papanek, Victor	Year	2005	Academy Chicago Publishers.
Summary	The book it's from the	first ones that discuss	es design from a So	ocial point of view, explaining
	-	-	-	solescence and others. It leads
02	the way towards a moral and environmental design. The Role of Ethics in the Practice of Design.			
Author	Attfield, Judy	Year	1991	Manchester: Man
				chester University Press.
Summary	-			nics from the theoretical stand
				sign practice giving the presen
	economic system goals	s where social respons	ibility its not in the	picture.
03		사회	적 디자인	
		• 7	2015	Kookmin University
Author	박지나 오주은 조	Year	2015	Rookinin Oniversit
Author	박지나 오주은 조 현신	Y ear	2013	Rookinin Oniversit <u>.</u>
Author Summary	현신 It discusses the curren	t concepts of Social D	esign, Social Desig	gn history and states example
	현신 It discusses the curren of Social design practi- how it is developing.	t concepts of Social E ces. Also stablishing t and social sustainable	esign, Social Designe current situation	gn history and states example of Social Design in Korea an
Summary	현신 It discusses the curren of Social design practi- how it is developing.	t concepts of Social E ces. Also stablishing t and social sustainable	esign, Social Designe current situation	gn history and states example of Social Design in Korea an For local development in the
Summary 04	현신 It discusses the curren of Social design practi- how it is developing. Innovation, design, a	t concepts of Social E ces. Also stablishing t and social sustainabl contemp	esign, Social Designe current situation lity: New trends for any world.	gn history and states example of Social Design in Korea an for local development in the Universidade Esta
Summary 04	현신 It discusses the curren of Social design practi- how it is developing. Innovation, design, a Pedro Arturo Martí-	t concepts of Social E ces. Also stablishing t and social sustainabl contemp	esign, Social Designe current situation lity: New trends for any world.	gn history and states example of Social Design in Korea an For local development in the
Summary 04	현신 It discusses the curren of Social design praction how it is developing. Innovation, design, a Pedro Arturo Martí- nez-Osorio, Marcia Barana	t concepts of Social E ces. Also stablishing t and social sustainabi contemp Year	esign, Social Designe current situation lity: New trends for ary world. 2017	gn history and states example of Social Design in Korea an For local development in the Universidade Esta dual Paulista, Baur (Brasil)
Summary 04 Author	현신 It discusses the curren of Social design practi- how it is developing. Innovation, design, a Pedro Arturo Martí- nez-Osorio, Marcia Barana It discusses social des empowering of commu	t concepts of Social E ces. Also stablishing t and social sustainabl contemp Year ign as an integrator d	esign, Social Designe current situation lity: New trends for ary world. 2017 iscipline, based on	gn history and states example of Social Design in Korea an For local development in the Universidade Esta dual Paulista, Baur (Brasil) the creation of networks, th
Summary 04 Author	현신 It discusses the curren of Social design praction how it is developing. Innovation, design, a Pedro Arturo Martí- nez-Osorio, Marcia Barana It discusses social des	t concepts of Social E ces. Also stablishing t and social sustainabl contemp Year ign as an integrator d	esign, Social Designe current situation lity: New trends for ary world. 2017 iscipline, based on	gn history and states example of Social Design in Korea an For local development in the Universidade Esta dual Paulista, Baur (Brasil) the creation of networks, th
Summary 04 Author	현신 It discusses the curren of Social design practi- how it is developing. Innovation, design, a Pedro Arturo Martí- nez-Osorio, Marcia Barana It discusses social des empowering of commu- sign.	t concepts of Social E ces. Also stablishing t and social sustainabi contemp Year ign as an integrator d unities, and in tools th	esign, Social Designe current situation lity: New trends for a ry world. 2017 iscipline, based on at can facilitate the	gn history and states example of Social Design in Korea an For local development in the Universidade Esta dual Paulista, Baur (Brasil) the creation of networks, th
Summary 04 Author Summary	현신 It discusses the curren of Social design practi- how it is developing. Innovation, design, a Pedro Arturo Martí- nez-Osorio, Marcia Barana It discusses social des empowering of commu- sign.	t concepts of Social E ces. Also stablishing t and social sustainabi contemp Year ign as an integrator d unities, and in tools th	esign, Social Designe current situation lity: New trends for a ry world. 2017 iscipline, based on at can facilitate the	gn history and states example of Social Design in Korea an For local development in the Universidade Esta dual Paulista, Baur (Brasil) the creation of networks, th creation and expression of de cial Design practice.
Summary 04 Author Summary 05 Author	현신 It discusses the curren of Social design practi- how it is developing. Innovation, design, a Pedro Arturo Martí- nez-Osorio, Marcia Barana It discusses social des empowering of commu- sign. Design for Se Pauline Appels	t concepts of Social E ces. Also stablishing the and social sustainable contemp Year ign as an integrator d unities, and in tools the ociety: A qualitative for Year	esign, Social Designe current situation lity: New trends for ary world. 2017 iscipline, based on at can facilitate the research on the So 2015	gn history and states example of Social Design in Korea an For local development in the Universidade Esta dual Paulista, Baur (Brasil) the creation of networks, th creation and expression of de cial Design practice. Erasmus Universit Rotterdam
Summary 04 Author Summary 05	현신 It discusses the curren of Social design practi- how it is developing. Innovation, design, a Pedro Arturo Martí- nez-Osorio, Marcia Barana It discusses social des empowering of commu- sign. Design for Se Pauline Appels Social designs as the I	t concepts of Social E ces. Also stablishing the and social sustainable contemp Year ign as an integrator d unities, and in tools the ociety: A qualitative in Year eader of an alternative	esign, Social Designe current situation lity: New trends for ary world. 2017 iscipline, based on at can facilitate the research on the So 2015 e socio-economic r	gn history and states example of Social Design in Korea and for local development in the Universidade Esta dual Paulista, Baur (Brasil) the creation of networks, th creation and expression of de cial Design practice. Erasmus Universit
Summary 04 Author Summary 05 Author	현신 It discusses the curren of Social design practi- how it is developing. Innovation, design, a Pedro Arturo Martí- nez-Osorio, Marcia Barana It discusses social des empowering of commu- sign. Design for Se Pauline Appels Social designs as the I	t concepts of Social E ces. Also stablishing the and social sustainable contemp Year ign as an integrator d unities, and in tools the ociety: A qualitative for Year eader of an alternative cuses on societal impart	esign, Social Designe current situation lity: New trends for ary world. 2017 iscipline, based on at can facilitate the research on the So 2015 e socio-economic r	gn history and states example of Social Design in Korea an For local development in the Universidade Esta dual Paulista, Baur (Brasil) the creation of networks, th creation and expression of de cial Design practice. Erasmus Universit Rotterdam reality. Concluding that Socia

[Table 10] Social Design Precedent Research

Author	Jonathan Ventura & Jo-Anne Bichard	Year	2016	International Jour- nal of Design Crea- tivity and Innovation
Summary	The paper discusses the differences on Inclusive, Empathic, Participatory, Co-Design and So- cial Design. It sates Social Design as focusing in a deeper understanding of the Socio-cultural worlds of the users and the designer. Also defining Social design as Design anthropology.			
07		Social design:	an introduction	
Author	Chen, D.S.; Cheng, L.L.; Hummels, C.C.M.; Koskinen, I.	Year	2016	International Journal of Design
Summary	can overcome the limit	sign as a topic of researc s of their practice by joi nolders involved in socia	ning forces between soc	
08	1	Rhetorical Appeals in D	esign for Social Chang	ge
Author	Germán Mauricio Mejía Ramírez	Year	2013	University Of Min- nesota
Summary	In this dissertation, Social Design and Design for Social change is defined as design activities and products for a positive change in people and their knowledge, attitudes, and/or behaviors. The research is based on rhetorical appeals and states design principals for them in design for social change. The researcher recommends creating social-change flexible design products.			udes, and/or behaviors. s for them in design for
09	Human-centered des	ign for Social Impact: Development l	Case Studies of IDEO.or Design Summit	rg and the International
Author	Jessica Vechakul	Year	2016	University of Cali- forna, Berkeley
Summary	This research studies two models of the application of Human-centered Design for Social Im- pact. The IDEO.org where professional design teams' partner with social sector organizations to design scalable products and services and the IDIN where students and community members from low-income communities learn to design appropriate technologies and launch social en- terprises through an educational conference.			
10	Design for Social Change: Co – Design as a method to approach education in a margin- alized community in Mexico			
Author	Patricia Santillán Enríquez	Year	2017	Norwegian Univer- sity of Science and Technology
Summary	engaging with certain	nges of co-designing in d populations specially wh portance of considering	nen we talk about margin	nalized communities. It

This study on previous research was focused on the concept of Social Design, the responsibility and ethics of Social Design and the use of human-centered design as a tool of Social Design. This study can assist us in further understanding Social Design as a methodology tool that can later be used in a Social Design Project. For the purpose of this research Social Design is perceived as a problemsolving methodology to understand the user affected by a problem, generate ideas with the users and create and test prototypes.

3. Case Analysis

3.1. The WaterWheel

- Name of Project: WaterWheel
- Methodology: IDEO, Human-Centered
 Design Toolkit
- Author: Catapultdesign
 - Product: Wheel that allows females that need to carry water to their homes to simply push the water in simple containers.

WaterWheel, the wheel that allows anyone to push water instead of carrying it in the head in containers. The creators estimate that you can save up to 35 hours a week in water transport while preventing physical problems arising from loading it every day. It frees up precious time that allows girls to go to school and women to do income-generating jobs to improve family finances.



[Photo 1] Woman Using the Water Wheel

There has also been an unexpected effect: the invention has achieved an unprecedented popularity among men who see the water wheel as a work tool. Going to collect water is no longer a "feminine" job, in a pejorative sense, but requires the use of a tool.

The results of this project are important because it was design using the IDEO toolkit, with this the product became even more successful than expected given that it was made as a tool not to "help" but made by the community itself to improve the quality of living.

For the research this demonstrates that the use of a Social Design methodology when working with a community improves not only the specific goal target but the general quality of living. They are not giving a product, they are heard, understood and then debated different prototypes, therefore they feel as actors in the project and embrace positively the result.

3.2. Food for Education

- Name of Project: Food for Education
 Author: Food for Education Program
- Product: Provide lunches every school day.

It is a nonprofit organization that works with vulnerable children in the public-school system to improve their lives and school performance. Founded in 2012, the Food for Education pilot program is based on Ruiru Primary School Kenya. They provide lunches every school day, mentors and tuition to improve their health, school performance and increase their chances of entering good secondary schools in a merit-based high school entrance system.



[Photo 2] Food for Education Program

This Project is similar to mine in which the main goal is to create a communal kitchen were people of the community can have warm food to eat every day before going to school or work in the land.

The reasoning behind the positive results of this project are not limited to the free food offered, this project helps kids understand that they have value and that they deserve more, as well as helping them in their school performance not only because of a fool stomach but because they fell the need to work harder to show they are worthy of the help.

3.3. Ilma Primary School

- Name of Project: Ilma Primary School
- Methodology: Local Fabrication (Lo-Fab). Product: Primary School

The school serves as a community center for village-level programming to promote sustainable farming and hunting practices for the mutually beneficial integration of villagers and wildlife. With its innovative design, it has become a beacon school, attracting the region's best teachers and offering students opportunities beyond subsistence farming.

Author: Andrew Brosse



[Photo 3] Ilma Primary School Building

This project serves as a community center for integration with local wildlife. Built entirely with materials and workmanship on site, the school embodies the MASS spirit of Lo-Fab, or local manufacturing, highlighting crafts and local skills.

This it's a project that uses innovate design tools in its process, they architect perceive that there is a gap in the community that need to be solved with the creation of a school, bus as they are using an innovative tool, instead of using government funds and hiring workers to build the project. They invite the community to participate actively in the building on site, this guarantees that they feel the project not as obtrusive and invasive, but as something that they built themselves from cero and they feel as their own.

3.4. Maya Workshop

- Name of Project: Maya Workshop
- Methodology: Community Centered
- Author: Haciendas del Mundo Maya
- Product: Taller Maya work Program.

Taller Maya is a project of Fundación Haciendas del Mundo Maya, which, from a perspective that promotes commercial equity, collaborates with around 200 artisans from 16 communities of the Yucatan peninsula, who masterfully work with more than 15 traditional artisan techniques. area.

Taller Maya works in favor of gender equality, which is an opportunity for Mayan men and women to work for income and improve their quality of life, their families and their communities. Artisans revalue their cultural traditions and make their identity the axis to produce, incorporating their knowledge on ancestral techniques and exercising sustainable practices.



[Photo 4] Mayan worker using traditional techniques

With the purchase of these products, artisans increase their income and the quality of life of their families. This project is important because it used traditional techniques and designs to sell to different mediums. This not only increases the quality of life of the artisans but also it gives value to their cultural traditions.

3.5. Gira Dora

- Name of Project: GiraDora.
- Methodology: IDEO HCD Toolkit
- Author: Alex Cabunoc and Ji A You
- Product: Washer and dryer pedal.

Washer and dryer pedal that works without electricity. GiraDora is a manual washer - dryer that works with a pedal that turns the drum, an aid for those communities where they have difficult access to electricity. It is designed so that the person who sits on it rotates the pedal. In this case, sustainability comes hand in hand with need.

It has been designed by Alex Cabunoc and Ji A You. A visit to Cerro Verde, Lima (Peru), inspired these two American students to create the GiraDora. Washing clothes, in some regions with difficult access to electricity, involves people working 6 hours a week outside their homes. For this they have designed GiraDora, to free the people of that time, a washing machine of human propulsion that has a price close to 40 dollars. Its operation is simple, a pedal moves the drum that is inside the drum, is designed to sit on it and so it is more comfortable to operate the pedal.



[Photo 5] Gira-dora in Peru

This project was design with IDEO Human-center toolkit, therefore the process of design is important and relevant to mine. When developing the project, they invested time getting to know the community and understanding their real issues and problematics, several aspects as the lack of access to water and the small spaces are decisive points regarding design. It was also important to make the price of the product accessible to the user. While this project was developed with the community suing the IDEO toolkit and the product was successful, the results on long term are not positives, because even 40 dollars is not accessible currently to the community living in the area. If this project had worked with support of the government or perhaps had design the product to be DIYable by the community themselves, it will be more successful.

4. Social Design Responsibility

The pursuit of increasing user participation in the design process implies a realignment of designers' roles (developer, facilitator and generator). Most importantly, it is about how designers should work in a flexible way and shift between different roles for different situations. Design is not about strategy but more about tactics. The essential job of designers is to develop new channels of communication with stakeholders and creative design processes²³

Therefore, as designers we have an important role in contemporary society, we have the power to influence different users and audiences, and we should do this responsibly. At the moment there isn't any regulation as to what are the code of ethics that we as designers should follow, but at the same time if we manage to find a designing method that can help us create a more just, most viable and livable future we are responsible to adopt it and benefit from its value.

The author Papanek, mentions that the first responsibility of a designer is designing for the people's needs rather than for their wants, or artificially created wants. Because of this he presents areas where designed is urgent and needed but there is little to no design in them. They are areas that promote Social good but there are initially low return. This are the areas where Social Design should work on.Design for the Third World, Design for the disabled, Design for Medicine, Design for experimental Research and Design for Breakthrough Concepts. This are the six directions that designers must practice.

5. Social Design Stakeholders

Social Design implies the participation of the many main actors in the design process; This is possible because -as has been mentioned- social design is not limited to the specific fact of designing but encompasses the creation of methodologies. During the process of any social design project it is important that the community is able to conceptualize the network where they can rely upon and

²³ Yanki Lee, What Are The Social Responsibilities Of Designers? Investigating New Prespectives For Design Participation, Royal Collage or Art, 2007

impact.24



[Figure 10] Social Design Stakeholders

Therefore, in Social Design, the stakeholders are the people, the groups or the organizations that are directly or indirectly involved with the project, so that they can affect and be affected by the actions, objectives and policies.²⁵

This modality of "work" has not yet been consolidated in government institutions and educational systems as an elementary tool, so many people who want to develop projects under this modality, undertake a path where the main protagonists are them and the social/local actors for which the project is gestated. It could be said then that many of these projects are conceived and developed largely fed from below, the strength and willingness of transformation the social actors themselves have, as these are the people who need it most.

6. Social Design Relevant Methods

6.1. Human Centered Design by IDEO

Name: Human Centered Design
 Authors: IDEO

Human-Centered Design (HCD) is a process and a set of techniques used to create new solutions for

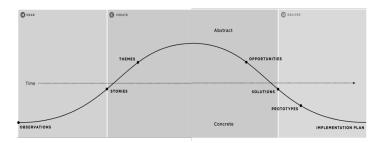
²⁴ Knowles and Spencee, *Designing With Stakeholders During Social Innovation Projects: A Mapping And Analysis Tool,* Design Society 83, 2016, pp. 682-687,

²⁵Stakeholder, BusinessDictionary.com, http://www.businessdictionary.com/definition/stakeholder.html

the world. The HCD process begins by examining the needs, dreams, and behaviors of the people we want to affect with our solutions²⁶. Their process is divided in three parts called Hear, Create and Deliver. This methodology allows the designer to identify these factors: the desire of the actors, how possible it is and how to make it viable. The solution to the problems presented can be found at the overlap of these three factors.

First, Hear. In this part they suggest first to identify the challenge to affront. The result should be the answer to the question, what are the goals for this project, while at the same time it helps identify the challenges and limitations while recognizing the abilities and the actual knowledge.

Second, Create. This is the lengthiest part of the process, after the first part where one observes and canalizes information, this part of the process revolves around getting real data and numbers of the situation at front. Then with this information, defining what are the opportunities ahead and using this to create a solution via brainstorming whit the community.



[Figure 11] Chart Hear, Create, Deliver steps of IDEO

Third, Deliver. This is the technical part of this process, in this part the designers can present different prototypes and test them through pilots to finally be able to implement your solutions.

This methodology is one of the most relevant at the moment, it works because it is constantly working with the community and future user, which allows the team of designers to identify the real necessities and the current talents and abilities. And uses this to create a result that can be tested and can be improved over the long term. This methodology is sustainable over time, as it is built with a constant learning and iteration in mind, using a continuous learning cycle. Then the solutions can

²⁶ IDEO, Human Centered Design, Self-published, IDEO, USA, 2010

continue to evolve and impact positivity in the environment that are planted.

6.2. Social Design Methods Menu by Lucy Kimbell and Joe Julier

Name: Social Design Methods Menu
 Authors: Lucy Kimbell and Joe Julier

This document summarizes the main approaches and methods developed over several years through teaching and supporting managers and entrepreneurs. It provides an introduction and manual for those looking for a new way to tackle social and policy issues, such as caring for the elderly or reducing worklessness among young people.²⁷ They separate their work process in 4 parts, these parts are not linear ad one can return to the other when needed.

First, Exploring. This section is about observing the context of the area you want to tackle, talk with future protagonist, experts, locals and so to be able to understand the issue better.



[Figure 12] Example about Drivers of Change Steps

Second, Making sense. In this part you analyze the date that was received in part one and with these data you can develop a key goal or goals with your team.

Third, Proposing. This is where you start proposing ideas, these ideas would then be seen under different variants to help make better decisions.

²⁷ Lucy Kimbell and Joe Julier, Social Design Methods Menu, Field Studio, 2012

Fourth, Iterating. This is about testing your ideas to help understand them better. This process could make you go back to the other parts and rethink your idea.

Whilst this method seems to have worked well in a service design environment, it does not seem that it would properly work in a social design intention for a community. This is mainly because the target users are not constantly included in the process of design, leading them to reject the proposal made by the team. Also, it lacks a correct path for action, without it would be hard to maintain a project for a long term.

6.3. Collective Action Toolkit by Frog Design

Name: Collective Action Toolkit
 Authors: Frog Design

The Collective Action Toolkit was created to help bring groups together to accomplish a shared goal. It consists of an action map and activities. These activities offer different ways to develop solutions to make change happen in a community or organization²⁸.

They have organized they toolkit in six different activities, all of those are circular in action and go back to the major one. We will know see these activities and their major action directions.

Process: First, CLARIFY YOUR GOAL. For these process CAT proposes 4 activities, one to decide the impact area you are interested into, the second is defying the problem you want to act on to, then find the goals you want to achieve, and the last one is to check this Goal throughout the process to see if anything changes and make adjustments²⁹.

Second, BUILD YOUR GROUP. The activities they propose are sharing the unique abilities and skills of every person involved to see what could be used to reach the goal, then find what else you need to learn, identify other people who could inspire and help the group intentions and lastly connect with people that can help with specific issues. With these activities, the group gets to know each

²⁸ FROG Design Team, Collective Actions Toolkit, FROG, USA, 2012

²⁹ Ibid

UMAGINE SEEK CLARFY BUILD PLN

other, potentiate their own skills and make connections with other useful people.

[Figure 13] The CAT Action Map

Third, SEEK NEW UNDERSTANDING. This step is really important to have a better approach with the targeted users and genuinely understand the issues that need resolving.

Fourth, IMAGINE MORE IDEAS. First an idea session, where everyone can share their one thoughts and ideas, then take these ideas and combine them in better ways, after grow the strengths of each idea to create better ones and finally narrow these to the ones that you want to try. The most important section of these actions is to get ideas that are achievable.

Fifth, MAKE SOMETHING REAL These proposes several actions that could put into perspective the ideas proposed in the previous section, acting, making comic strips, making prototypes are some of the suggestions to study these ideas in a more real environment.

Sixth, PLAN FOR ACTION This is the last one and proposes to make an agenda of activities, then divide your team in action groups, set a timeline and keep the motivation. This is about putting into action all the research previously done into resolving the issues proposed and reaching the common goal.

The most valuable part of the Creative Action Toolkit is that they proposed to review the goal throughout the whole process, therefore maintaining a clearer focus until the end. This part of the process is especially relevant because is important to always have a goal that is achievable and even

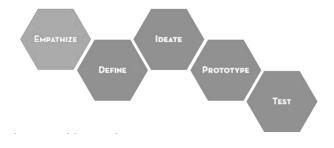
more in community design cases where the moral of the group could change if certain goals are promised but not accomplished. While is great to dream big, we as designers have the responsibility to leave up to the user expectations.

7. Innovation Design Relevant Methods

7.1. Stanford University, Tools For Taking Action

Name: Tools for Taking Action
 Authors: Stanford University

This compilation is intended as an active toolkit to support a design thinking practice³⁰. These tools follows a human-centered design process, as well as different methods and tools to do design work from a social design perspective. As a first process they provide a toolkit with seven steps they call "mindsets" with these attitudes a design thinker should do a better social design work.



[Figure 14] Standford University Bootcamp Bootleg

The image presents the five design thinking methods for a better design human centered process. First, they present "Empathy". For this they recommend three steps, to observe user and human behavior in its context, then to engage and interact through interviews and encounters, last to immerse in your user experience to understand what he is experiencing.

Second, "Define". With this method one should develop a strong understanding of the users, this process as a result that in this case is called "point of view". This point of view should be use a s a

³⁰ Stanford University, Tools For Taking Action, d.school, https://dschool.stanford.edu/resources/, 2018.05.14

statement guide, a unique vision that helps you understand the challenge that you are addressing as well as the insights that you were presented in the previous step.

Third, "Ideate". This is the step where you can brainstorm different ideas in your team, with a wide and diverse box of ideas and solutions to your challenge you can start building prototypes with your users.

Fourth, "Prototyping". This step can be anything that takes a physical form, from role playing the ideas, present them in post it notes to actually creating objects, these prototypes should be rough and rapid so it is possible to approach different possibilities.

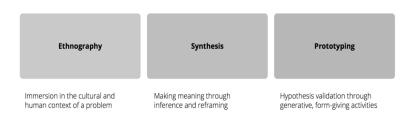
Fifth, "Testing". With this, you plan to test your prototypes expecting them to fail, so you can, after putting them in the context of the user, have a better understanding on what to improve.

The Stanford University, Tools for Taking Action is the most complete toolkit about Social Design, the previous resume is only about the first steps one should take to proceed to design in a human centered environment, other than this, they provide different methods, for example how to approach the interviews. These methods are key to a better understanding and better results at human centered design.

7.2. Austin Center of Design, AC4D Design Library

Name: AC4D Design Library
 Authors: Austin Center of Design

The Austin Center of Design has a very controversial opinion as to how is design approach on the present. They state that designers are currently "Working on some really stupid stuff", stuff that are not necessary in our society and are not the right approach to a good design. As they say, Design lives in a context of traditional, outdated business ideas: market-driven vision, Design lives in a context of traditional, outdated business ideas: responsive "competitive" roadmaps and Design lives in a context of traditional, outdated business ideas: requirements. Therefore, a market driven vision of designing is not the proper way to design, they then present the user with a new way of designing.



[Figure 15] AC4D Non-linear process of design.

Their process it developed in three stages that are not linear, they talk about Ethnography as they main tool to design, which means to immerse in the cultural and human context of a problem. Then this immersion should be synthetized by making meaning of its information through inference and reframing. Then as a designer the next step is Prototyping, which is intended to give validation trough different activities to the synthesis and ideas planted before.

This methodology is really interesting because it uses ethnography as the main tool of design, is a nonlinear methodology that plans on always go back to the previous steps, and it uses as a main core an immersion on the cultural and human side of the problem, this helps understand the problem directly and make a meaning of it, making it easier to find a proper solution, that can always go back to the first understanding step.

8. Summary

For the purpose of this study Social Design is a methodology used to develop community-oriented projects for collaborative creation of Andean Icon products with the community of Yanque. After knowing all these definitions, you can understand the concept of social design as the ideal tool to be used as a methodology in the project. This method could work in the Andean environment due to the use of ethnography as an instrument of design, the search for understanding and empathy towards the user and, more significantly, the close participation of the community in the process from beginning to end.

The Andean culture is a culture based on the community, they see themselves as an organism in which all the parts must function properly to make it work. Therefore, this knowledge is relevant to my research because if the project uses a Social Design methodology it is conceivable to design and create jointly with the community, which generates progressively more sustainable and viable results; and increases the impact of the program for the community in the long term.

The use of a Social Design methodology it makes it possible to co-design and co-create with the community, brings more sustainable and viable results and increases the impact of the program for the community in the long term.

It is important to be able to use these tools to identify the real necessities of the community, as well as the current talents and abilities that we can use to push the project forward. It is important as well that the community knows that they are the most relevant part of the project and that their opinion is relevant to the design. These methodologies could allow the designer to constantly approach the community and go to a process of hearing and understanding as well as being an important part of the design stages.

This leads us to the following questions:

Can the development of Social Design Model specific for the Yanque area improve in the community the sentiment of self-worth and pride regarding their Andean Culture?

Can design of a Stakeholders model for the area of Yanque enhance the communication with the relevant collaborators and stablish a sense of community between them and stakeholders?

Could it be feasible to stablish a Social Design Model that can be utilized for this and other projects with social purposes in the area of Yanque?

IV. Social Design Project

1. Background Information

This project is located in the rural town Yanque, in the valley of Colca, Arequipa, Peru. Currently in the rural town of Yanque, there is a population of 2,295 people according to INEI³¹ until 2010. From this population 36,6%³² live in total poverty, and 8,6%³³ in extreme poverty³⁴. This derives in a critical situation, where almost half of the population cannot afford food and living.

On the other hand, education in these areas focuses mainly on post-colonial history and culture (after the arrival of Christopher Columbus in America, 1,492 AD); which contributes considerably to the fact that the traditional ancestral culture of the Andes is being lost, since young people are not encouraged and there is a lack of interest in continuing with the traditions of their parents and ancestors.³⁵

Also, a strong earthquake hit the area in the year 2016, this demised strongly the arrival of tourist to the area which is one of the main incomes for the location, resulting in higher percentages of poverty, also the lack of tourist appreciating their cultural aspects, values and traditions derived in a lack of pride and even a stronger detachment from their traditional culture and values.

This project is a response to this situation and is developed in search to help to improve people lives in the rural area of Yanque. By opening a social project in which artisans of Yanque could elaborate products destined to sell to the many tourists that visit the area. This product will be based in Andean Iconography specific to the area.

³¹ El Instituto Nacional de Estadística e Informática Peru, INEI, www.inei.gob.pe/, 2018.03.11

³² Ibid

³³ Ibid

³⁴ Total Poverty: It includes people whose homes have income or consumption per capita less than the cost of a total basket of goods and services. Extreme poverty: It includes people whose homes have income or consumption per capita less than the value of a minimum basket food

³⁵ Luis Enrique Alvizuri, The Andean World and Contemporary Challenges, Lima, 2008

1.1. Project motivation: Madre Antonia Kayser

This project could not begin without talking about the person who inspired it all. Madre Antonia Kayser. Mother Antonia Kayser was born on July 17, 1923 in New York (USA), arrived in Lima in 1969 with the Maryknoll congregation. In 1971 he travels to Arequipa and decides to stay in the town of Yanque to fulfill his pastoral work.



[Photo 6] Madre Antonia Kayser and people from Yanque village

She, was the person in charge of the parish of Yanque, as well as of the convent. She did so until 2010, when she had to move to the city of Arequipa because of his state of health. While being in Yanque, she started a community kitchen36. Fragment of a biographic research about Madre Antonia Kayser by Maria Benavides about "El Desayuno" or the food that was given daily to the people of the town.

In the year 2010 Madre Antonia had to leave Yanque because of her weak health, 5 years later she passed away and with her death the program "El Desayuno" closed indefinitely. The money that was destined to this project was taken away and the people that worked with her began the leave one by one. Her selfless interest in the Yanque community and the help that she gave to my own family serves as an inspiration for this Project. The community of Yanque needs this type of health, the

³⁶ María Angélica Matarazzo de Benavides, La Madre Antonia Kayser, Bibliographic Essay, 2012, pp.3-6

famish in kids and ancients is visible to the eye, but the same community have steped away from their own original values and this sector is being ignored. With this project we hope that a percentage of the money reunited by the sell of this products could help with the re-opening of the Community kitchen in with that aid in the current situation in Yanque.

1.2. Evaluation of Yanque

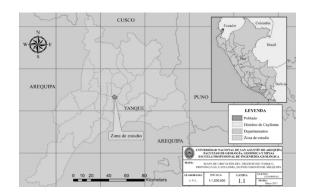
1.2.1. Location, Weather and Population

The district of Yanque is ubicated in the province of Caylloma, in the region of Arequipa in Peru. It sits in an altitude of 3417 meters above sea level. Yanque is Located at 150 km from the city of Arequipa, it has as geographic boundaries the communities from Ichupampa, Coporaque, Achoma and Chivay. To access the town of Yanque there are established roads, although in the final section the accesses constitute it by trails that in times of rain they become difficult to access due to the accumulated mud.

In Yanque there is only a Posta, which is a small health center equipped with one nurse only for ambulatory medicine and injections. The nearest hospital is 159 km of distance at around 3:50 min in car.³⁷

There is also a high deficit in educational infrastructure. There is one education center for kids under 6 years old, and another called San Antonio de Padua that teaches only primary school to kids up to 13 years old. The nearest Highschool is situated in Chivay, a town 10 km away, taking car transportation it's too expensive for kids of the area so they are forced to walk if they want to go to high school. This results in families separated, where the young yanquenians will most likely choose to not go back to Yanque after finishing their education.

³⁷ Ministery of Health, DGIEM, 2014



[Figure 16] Map of the Location of the district of Yanque, in Caylloma, Arequipa.

The weather in the district of Yanque is frigid, generally cold and there is presence of frost for most of the year and a seasonal rain that goes from December to March, being February the heaviest rain month. The average temperature during the year go from an average of 10.9 ° C in February to a 4.7 °C in the coldest month of July. The minimal temperatures are low during the year, with a lowest of -3° C and highest of 4.7° C. We have to understand that in difference with cities, there is no heating system in Yanque, therefore inside spaces tend to have temperatures as low as the outside temperature.

[Table 11] Average Climate by month in Yanque

	Average Climate by month in the district of Yanque												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dec	Annual
Average temp (°C)	10	10.9	10	8	7.5	6.3	4.7	4.9	6.5	7.8	9.3	10	8

This situation results in a community that is suceptible to respiratory diseases, cronical colds and infeccions. For example in the year 2016, 214 cases of neumonia happened in Yanque only in childrens under 14 years old³⁸. This is all the more worring on the grounds that there is no entrance to legitimate medication or medical consulte in the sector.

This data is important to the investigation in light of the fact that influences negatively in the already adverse economic circumstance the community lives in. This situation only perpetrates the state of

³⁸ Direccion General de Salud Arequipa Analisis de la situacion de las Infecciones Respiratorias Agudas en Arequipa, 2016, pp.31-32

poverty because it negates further education and easy access to health.

Fact	Number
Estimated Population	2137
Access to Clean Water	450 Houses
Chronic malnutrition (>5 years old)	11.3%
Poverty	58,7%

[Table 12] Leading Indicators in Yanque

The estimated population is of 2137 people from which the percentage of high-risk poverty its 58,7%. This shows that more than half of the population of Yanque leaves in a critical situation. It is also importante to note that there is an important percentage of chronic malnutrion on children under 5 years old, this led to early deaths, sickness, weakness and more in children. It is notable that due to poor nutrition kids in Yanque are shorter and then to grow up only to 1,70 and below.

Agriculture was the central economic activity for the community of Yanque until it began to be gradually displaced by a salaried pluriactivity, a phenomenon whose tendency is generalizing in other Andean communities. Thus, in Yanque they are no longer dedicated only to agriculture, but also to other complementary activities and services, such as tourism, handicrafts, livestock, transport, construction, among others.³⁹ But these activities are not enough to maintain the local community in prosperity.

This data also responds to the earthquake on the 15th of August 2016, because of this it is found that more than 200 houses collapsed in Yanque, most of which are uninhabitable. Most of the homes at the moment are lacking basic services as clean water, drainage systems and electricity. This actually compromises their health and the quality of life of the population. Also, because of the earthquake, the "picturesque" image of the rural town disappeared leaving behind only crumbles, this caused the tourism to diminish greatly.

This data is important to the research because it envisage the adverse economic conditions the

³⁹ Mario Sánchez, *Yanque in the Colca Valley (Caylloma, Arequipa). History and culture in the XV-XX centuries*, Dávila, Revista Huacaypata, 2017, pp. 4-13

community of Yanque currently endures, where more than half of the population lives in poverty. This helps in developing the project questions. Is it possible to improve the income for the artisan's community in Yanque trough the design of a better tourist-oriented product through the study of the visual aspects of Andean Iconography?

1.2.2. Traditions and Cultural Aspects

In Yanque the property of land and livestock is private, and the organization is heretical. Still the sense of community is strong, due to the needs for cooperation's for survival, for example, in the cleaning of canals, in the construction of reservoirs, in the erection of fences for the use of pastures, in the construction and maintenance of roads, in fallow land, in the construction of platforms and houses, or in the shearing of wool cattle.⁴⁰

Here, the communal organization has a central importance for the family units within a geographical, economic and political collective territory. Therefore, the communal dimension gives the family dimension not only a series of conditions and possibilities for them to develop their production, but also controls the forms and limits within which production family can be made; thus, the family constitutes the unit of peasant production, but it is the community that organizes the control of both natural resources and social resources , because the collective organization of the peasant community is still necessary in the productive dimension of domestic units, even when it is already inserted in a capitalist economy. ⁴¹

As for traditional celebrations the main ones happen in the months of February and August, both the warmest and coldest months. It is in these months when ritual payments are made to the Quechua deities. These celebrations are crucial part of the communal culture as they all require the intervention of the whole community to participate. An interesting example is the cleaning of the river in August. During this time, all man of the town, young and old, walk up to the birth of the river to proceed to clean the river all the way to the Yanque village. When they are done cleaning,

⁴⁰ Golte, J. (1987). La racionalidad de la organización andina. Lima : IEP, pp.18-35

⁴¹ Plaza, O. y Francke, M. (1981). Formas de dominio, economía y comunidades campesinas., Lima: DESCO, pp.23

they put flowers in the river, which signals the woman that have been preparing a feast to start setting up the tables for the comeback of the man. This celebration is interesting specially because the cleanness of the river is only primordial to those families who work in agriculture, as the rest of the families use water from government pipes. But the whole community sees the work of others as relevant to their equilibrium as a society, therefore even though not everybody needs the river cleaned, all villagers participate.

This data is important to the research because it allows us to visualize the cultural sentiment of community, in other words, the population of Yanque subsist trough reciprocity where they interchange and cooperate all in each-other's needs. This leads us to the questions. Will it improve the organization and communication of the community of artisans if the project is developed using a Stakeholders Model? Can the sentiment of self-worth and appreciation regarding their culture be improved through the use of a Social Design Model?

1.2.3. Tourism and Earthquake

In Yanque they are dedicated not only to agriculture, but also other activities and complementary services, such as animal farming, crafts, transportation, construction and tourism⁴². As a tourist point of Peru, the district of Yanque is attractive to those travelers who had an interest in thermomedicinal tourism, archaeological tourism, ecological and adventure tourism, and cultural and experiential tourism.⁴³The main activities of the area where agriculture, livestock and Tourism, among the main crops are potatoes, quinoa, etc.

In relation to tourism, thermomedicinal sources such as is the case of the Hot Springs of Chacapi; these are also called Baños de Yanque, archaeological tourism is located in places like the Andanerías de Llactacucho; this archaeological resource, as its name already indicates, is conformed by systems of terraces that have a peculiar form of distribution in contrast to analogous resources, the previous archaeological attractions the Complex is added Archaeological site of Uyo-Uyo that apparently

⁴² Mario Sánchez, *Yanque in the Colca Valley (Caylloma, Arequipa). History and culture in the XV-XX centuries*, Dávila, Revista Huacaypata, 2017, pp 4-12

⁴³ Turismo Peru, Organization for Peruvian Tourism, https://turismoi.pe/ciudades/distrito/yanque.htm

would have been an important citadel, in which both housing structures are distinguished, as agricultural and even a cemetery. The resource belongs to the Collagua Culture and it is part of the Cultural Patrimony of the Nation.

At the end of XX century, the tourism appears in Yanque as a productive activity, complementary to the agriculture. In this town the tourism comes primary due to various high quality hotels that where built near the town, they are more intended towards relaxation and enjoyment of the outdoors. Even though these hotels have a high frequency, they activities are all extent from the economical participation of the community of Yanque⁴⁴.

Also, there as an incentive to be part of what is called Community Rural Tourism, which means that locals give lodging to tourist while at the same time they include them in their way of life, their cooking methods, the history and the culture of the place.

However, the tourism activity in Yanque generates limited effects in the local development, especially because the financial income comes mainly to those that work in this area and not the community as a whole. Mainly the families that can get themselves inserted in tourism as a principal activity are families who have already the capital to invest in these projects and be able to insert themselves in the commerce.⁴⁵

At the moment the artisan production is a part of the community by men and women alike, their products have a small demand by tourist but the lack of innovation in these products results in low selling and low quality.

While tourism is constant specially in the high seasons (Jan-Feb and Jul-Sep) at the moment there is no positive influence in the community as a whole, and after the earthquake from 2016 the tourism has visually diminished.

⁴⁴ Mario Sanchez ,*Understanding the agriculture in the Peruvian Ande"*, Magazine Antropologias del Sur, Year 4 Number &, 2017, pages 235-256

⁴⁵ Córdova, H. Turismo en el valle del Colca y sus impactos en el desarrollo, Magazine Espacio y desarrollo, N 15, 2003.

The main places of interest of tourist before the eartquake were as follows:

- Thermal Waters of Chucapi: Several pools of warm natural thermal waters.
- Artesanal Center of "El Arte de Bordar en el Colca": A center where artisans get together to work on their embroidery.
- Arqueological complex of Uyo Uyo: An ancient Arqueological Complex.
- Charming Traditional Houses: The traditional housing made in adobe that also offer housing for tourists.

The night of 14 of August in the year 2016 a strong earthquake hit the population of Colca, the movement was a 5.3 in the Ritcher Scale and it was more devastating for the areas of Yanque, Ichumpampa, Achoma and Chivay.

The damages caused by the reactivation of the Yanque fault and the subsequent earthquake were: collapsed houses, landslides, landslides, rock falls and cracks in the ground, determined by the wave amplification ratio, type of soil and type of construction. It also cause death of three people.

Making a summary of the balances in damage we have: ⁴⁶Out of the total of 2187 population, 1345 where harmed by the earthquake in some form, this corresponds to the 63% of the total Population. This shows that most of the population was affected by the eartquake.

[Table 13] Population and Houses Harmed in the earthquake

Population and Houses Harmed in the earthquake				
Population Harmed	1345	Houses Harmed	387	
Population Unharmed	792	Houses Unharmed	223	

There has been longer than two years since the earthquake happened, but as of August 2018 the streets still look as if the earthquake happened last week. As explained by the mayor of the area,

⁴⁶ INDECI, Inspection Report, Evaluation Of Critical Zones And Vulnerability Of Housing In The Districts Affected By The Erthquake, 2016, pp.15-21

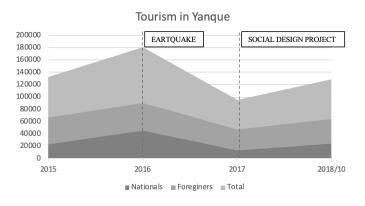
Romulo Tinta, the reconstruction advance is of less than 15% of the total. Also, out of the total damaged houses, only a small percentage was accepted ad to be taken care from the Government, giving lack of papers by the local population. ⁴⁷

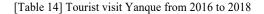
As for the economic situation in the locality of Yanque, it was strongly affected by the earthquake, given that the stronger way of living in the area is trough Tourist buying, staying and active spending in the location. The main tourist point of interest where damaged in the earthquake.

- Thermal Waters of Chucapi: Several pools where detroyed and are on process of being rebuilt.
- Artesanal Center of "El Arte de Bordar en el Colca": Due to the lack of tourist the Center closed.
- Arqueological complex of Uyo Uyo: Due to the critial condition of some of the bulding the place is for now closed to tourist.
- Charming Traditional Houses: Most of the houses built in adobe bricks fall down or where critically affected.

One of the main factors that affected the tourism in the area was that a tourist, 56 years old Vay\um Kem Edan, past away in one of the main hotels in the area of Yanque. Due to this, the tourism companies that sell offers in the capital where all people must depart from decided not to bring tourist to the area as it got a bad reputation after the passing. All of this resulted in the tourism in Yaque to dimish to mostly dissapeared from the area, living the population withoutone of their stronger incomes.

⁴⁷ Zenaida Condori , Diario El Comercio, *Two years after the earthquake*, 2018, https://elcomercio.pe/peru/arequipa/dos-anos-sismo-colca-familias-ichupampa-siguen-viviendo-modulos-noticia-546874





This data is relevant for the research in the aspects of envisioning the relevance of tourism as an economic activity for the community of Yanque, and how this has been adversely affected by the earthquake of 2016 aggravating further the adverse poverty circumstances in particular for the community of artisans that saw themselves in adverse situation due to the lack of selling. This lead us to the question, Will it improve the value and sense of self-worth for the artisans to be organized under a brand? Can this attract more tourist to the area?

1.3. Project Questions

In the terms of Location, Weather and Population. This data is important to the research because it envisage the adverse economic conditions the community of Yanque currently endures, where more than half of the population lives in poverty.

Referring to Traditions and Cultural Aspects. This data is important to the research because it allows us to visualize the cultural sentiment of community, in other words, the population of Yanque subsist trough reciprocity where they interchange and cooperate all in each other's needs.

In regards of Tourism and Natural Resources. This data is relevant for the research in the aspects of envisioning the relevance of tourism as an economic activity for the community of Yanque, and how this has been adversely affected by the earthquake of 2016 aggravating further the adverse poverty circumstances in particular for the community of artisans that saw themselves in adverse situation

due to the lack of selling. This helps in developing the following question:

Is it possible to improve the income for the artisan's community with the design of a better touristoriented product using the visual aspects of Andean Iconography?

Will it improve the organization and communication of the community of artisans if the project is developed using a Stakeholders Model?

Can the sentiment of self-worth and appreciation regarding their culture be improved through the use of a Social Design Model?

Will it improve the value and sense of self-worth for the artisans to be organized under a brand? Can this attract more tourist to the area?

1.4. Artisans in Yanque

In the valley of Colca, Yanque, there is a stablished community of artisans, called "El Arte de Bordar en el Colca". They started in the year 2006 with incentive by the government with a program that offered them embroidery training by machine, this allowed the people that participated to learn techniques to work more accurately and faster in embroidery which was done by hand before this. In this program, the government supported them by paying 80% of the fee and the students payed only the rest.

At the beginning of the program over 40 people signed up between men and women. But not everyone managed to acquire the skills as it also requires a lot of practice and talent, because of this only 20 people remained while at the moment there is 12 active members. The head of the organization is called Vilma Mamami, whom is also an artisan.

It is important to highlight that the work of embroidery has been done for centuries already, it is not only traditional but cultural as well, mothers tended to teach to their children, both men and women have been embroidering since they were young kids. Sadly, this tradition is getting lost as children now leave the town to attend high school and thy stop wearing the traditional clothing's that use the embroidery. And they no longer feel the need to learn this practice as they don't perceive anything useful coming from it.

At the moment the organization participates in different activities in the whole country promoting they iconography in different fairs. At the same time, they are constantly approached by designers of the capital city of Lima, where they are asked to make specific designs with their traditional embroidery and iconography. The problem with this activity at the moment is that they are payed only a small percentage of the final selling price of the product. Because of this they are interested in managing these types of designs themselves so that they can also sell at higher prices while at the same time being recognized by their talent and quality of work.

Their talent needs to be recognized and at the moment is in the process of being awarded the prize of Cultural heritage of the Nation, a prize that is given only to highly regarded arts and culture. The Ministry of Culture said that this intangible cultural heritage is transmitted from generation to generation and is constantly recreated by communities and groups according to their environment, their interaction with nature and its history, instilling a sense of identity and continuity, and contributing thus to promote respect for cultural diversity and human creativity.

1.5. Andean Iconography in Yanque

Yanque, as all of Andean Communities has a particular Andean Iconography pertinent to the local area and beliefs. Their Iconography is mainly focused in the flora and fauna of the area and it was historically used in their traditional clothing as to symbolize the good and the bad in each person.

The symbolism of the costumes is a fundamental subject under study, since the perspective of cultural anthropology allows to deepen the form and the important nuances in the costumes; in the process, the typical dress of the dances has been established originally, that were elaborated for the use in the pastoral, agricultural, ceremonial and carnival rituals; therefore the different costumes, give the chromatic impression and iconic representation, that express cultural identifications, landscape and liturgical valuations according to the Andean calendar, social relations and coexistence with nature.⁴⁸

⁴⁸ Sandra Imelda Huargaya Quispe, Significado Y Simbolismo Del Vestuario Típico De La Danza Llamaq'atis, Universidad de La Paz, 2016, pp. 3

Subject	Meaning	Symbolism	Picture
Zoomorphic	Vizcachas	It symbolizes the veneration of man towards the cos- mos or universe. The gift of attention is granted to receive sacred knowledge through divine intelli- gence.	
Zoomorphic	Rufous-colla- red sparrow	It symbolizes agricultural reproduction and the call to the presence of good weather.	
Zoomorphic	Scissor-tailed nightjar	It symbolizes the joy of life and good company.	
Zoomorphic	Condor	It symbolizes the release of pain, suffering, internal and external limitations and the freedom from guilt, especially doubts.	
Zoomorphic	Llama	These animals are the expression of Mother Earth (Mama Pacha) in the animal kingdom and symbolize the service of love. They provide wool, flesh, skin, bones, heart and intestines for the omen.	
Zoomorphic	Spectacled Owl	It symbolizes the conscious use of our third eye, in- tuition, which is the principle of sacred knowledge. When practiced, it elevates it to enlightenment and wisdom.	
Zoomorphic	Snake But- terly	The Andean sage indicates that if the tictire, visits a house, it carries the message of the certain death of a person.	jlo,

[Table 15] Andean Iconography in Yanque

Fitomorphic	Echinopsis	It symbolizes the flowering of love and young feel-	
	Oxygona	ings of love.	
Fitomorphic	White Twine-	It symbolizes the flowering of all good and just	A. CO , S
	vine	thoughts, feelings, emotions, sensations, perceptions	5 9 30 PS
		and actions.	
			77 0 000

1.6. Summary

Presently at the community of Yanque there is problematic situation where almost half of the population cannot afford food and living, in an area that is also prone to natural disasters and in which the winter the temperature reaches below zero in winter, with ice deposited on the surfaces causing a high mortality rate and many pulmonary diseases. This as leads pushed the community from their traditional agricultural way of living to a more plural activity community, they are no longer dedicated only to agriculture, but also to other complementary activities and services, such as tourism, handicrafts, livestock, transport, construction, among others.

The community is trying to gain empowerment trough the tourism activity, but it generates limited effects in the local development, especially because the financial income comes mainly to those that work in this area and not the community as a whole. At the moment there is no positive influence in the community as a whole, and after the earthquake from 2017 the tourism has visually diminished.

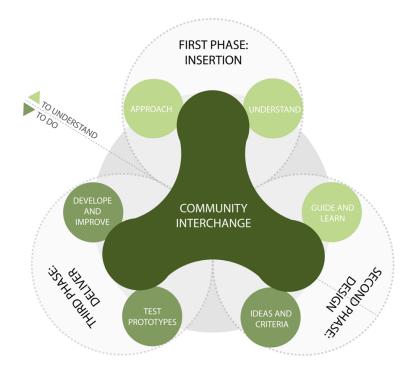
With this in mind the project could use the embroidery as a tool to generate more income while highlighting their traditions and culture because this tradition is getting lost as children now leave the town to attend high school and thy stop wearing the traditional clothing's that use the embroidery. And they no longer feel the need to learn this practice as they don't perceive anything useful coming from it.

Given the current situation in Yanque the correct approach to this project will be to affront it with a

Social design in mind. Through this it is expected to better understand the needs and talents of the community and then with that in mind proceed to design and develop the products with the community, that will then be sold to tourist.

2. Project Prototype

2.1. Project Social Design Methodology

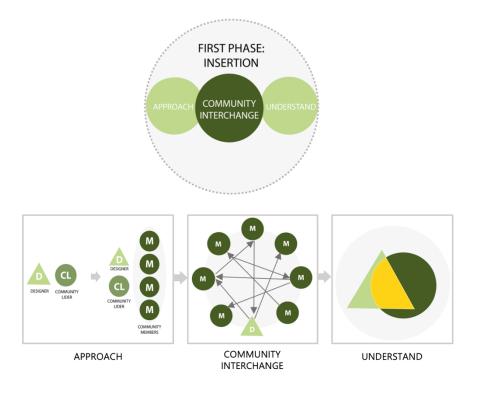


[Figure 17] Project Methodology in Yanque

To develop this project a Social design Methodology was used, this methodology has the community and their opinions, values and culture as the center of its development. For this the word "interchange" it's used, using its meaning "To give and receive mutually, to interchange", this word is central to the project, as a designer my intention was to give all I could to the users while at the same time receive as much possible from them.

⁴⁹ American Heritage Dictionary of the English Language, *Fifth Edition*. 2016

2.1.1. First Phase: Insertion



[Figure 18] First Phase: Insertion, approach, community interchange and understand.

Initially the designer makes a reconnaissance visit to the place and identifies the elements of interest for the investigation, as well as the configurations of the place's operation, its dynamics, the meeting points, recreation areas, spaces destined to the commercial activity, among others.

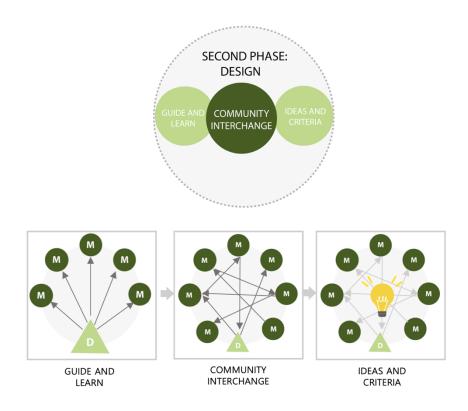
Thanks to this, he manages to identify the people related to the artisan activity of interest to the project, discovering the way in which they are organized and the possible existence of a delegate that represents them.

Later this representative of the artisan community is contacted, with whom the project to be developed and the disposition about the project is evaluated. If this is positive, the community representative evaluates and consults with the artisans about the designer's research, and then presents it to them, through a previously agreed upon Community Interchange.

In this meeting with the members of the artisanal community, the designer makes the presentation of

his project and then prepares to listen to the people about the work they have been doing, what are their main concerns, needs, successes and failures, which allows the designer to have knowledge of the current reality of the artisans and to understand the dimension of the situation to be addressed in terms of the strengths and weaknesses present in the community.

2.1.2. Second Phase: Design

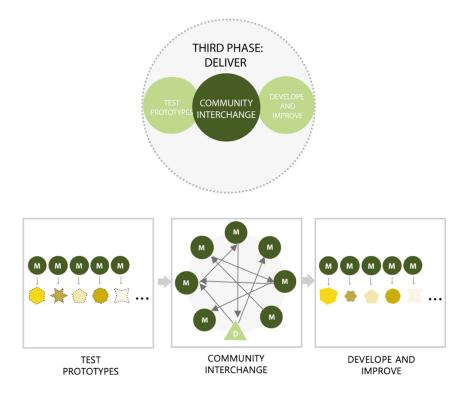


[Figure 19] Second Phase: Design, guide and learn, community interchange, ideas and criteria.

In this phase, the designer organizes a presentation gathering the main concepts of the research that he wishes to handle with the community, as well as material related to design that can serve as reference and tool for the artisans.

During this presentation of Community Interchange, the concepts that where research are exposed and reviewed, so that there is a feedback process between the theoretical material collected and the vision and management that the community has of these concepts, which allows the designer to learn about aspects of the local culture relevant to the project. Having defined this, we proceed to a more creative stage, where we have an open conversation about the possible products to be developed, the handling of colors, materials, dimensions and aspects relevant to the craft activity, establishing among all the participants, a series of possible criteria to handle in the process of preparation and a set of ideas that allow them to expand their possibilities as artisans.

2.1.3. Third Phase: Deliver



[Figure 20] Third Phase: Deliver, create prototypes, community interchange, test and improve.

After the creative process of the Community Interchange meetings, a period of time is established in which the artisans proceed to create prototypes of the products that have been discussed.

It is important that community members stay active with participation and comply with the timeframes that are being established to create the products, since this serves so that prototypes can be reviewed and tested at community exchange meetings, as well as also, it serves to share the experiences of the manufacturing process.

In these meetings where the artisans present the finished prototypes, a process of collaborative learning takes place, since the artisans, being the main protagonists of the project, are those who review each other, the work done, which allows them to express their opinion openly, without the need to feel that a stranger evaluates them. This review process that is accompanied by the designer, allows to determine which improvements or corrections that must be made in each of the works made.

2.2. Project Organization and Stakeholders



[Figure 21] Stakeholders in Yanque

This project is expected to be developed with three main actors in mind. First the principal protagonist of this project will be the people from the community of Yanque city in Arequipa, Peru, particularly the artisans.

Then the NGO AMA, Association Madre Antonia will also be fundamental in the implementation of the project specially with the economical collaboration. Also help from the government as well, specially the organization AUTOCOLCA, which is the Autonomous Authority of Colca and Annexes is the public institution responsible for promoting, organizing and managing the growth and consolidation of tourism in the area, as a means to achieve economic development, raising the quality of life of the current and future regional population, rescuing, reassessing and conserving the cultural and natural heritage as pillars of tourism; through a management that promotes institutional consolidation, concentration and education, with active participation of all actors in tourism activity. Then the Designer who works directly with the community.

On the last circle we have the support of Educators that help with the further education for the artisans in the necessary tools and ways needed. A catholic American congregation called Maryknoll and other NGOs.

2.3. Social Design Project Process in Yanque

2.3.1. Phase 1: Insertion

To begin, the rural city of Yanque was visited, a place recognition was made and the different and relevant places where artisans met to market or promote their works were mapped. It was possible to identify three places linked to the craft activity of embroidery, under the disposition indicated in the following image.

The most important space is the one used as the headquarters of the organization "El Arte de Bordar en el Colca" identified as number one on the map, then there is the local "Embroiders del Colca Taller"; and finally, the craft market. After visiting these places at different times of the day, it was found that only one of them was in use and was opened every day to offer memories to tourists who visited the city.

When asked about the situation of the closed premises, it was known that after the last earthquake, a large part of the locality was affected, which had an impact on tourism since most of the tourists decided to omit the visit to the city of Yanque, in his visit to the Colca Valley. This fall in tourism activity caused the community's economic situation to be affected and the other two places closed indefinitely. The indicated places that are related to the craft activity of embroidery, are used as follows:



[Figure 22] Map of Yanque and current meeting places

El Arte de Bordar en el Colca: is the center of the local organization of embroidery craftsmen, where they meet to learn new techniques, work together, attend relevant classes and, sometimes, show their work flow to the interested tourist.



[Photo 7] El Arte de Bordar en el Colca Artesanal Workshop

Bordadores del Colca Taller: is where the community of Yanque meets to make their different traditional outfits every day, which include the traditional skirt called "Pollera", the traditional hat, shirt, vest and coat. This place is currently closed due to the fact that the inhabitants of Yanque are going through economic difficulties and the making of this traditional clothing is really expensive, reaching a value close to the total income of one year for a complete team.



[Photo 8] Bordadores del Colca Taller and Handicraft Market

Handicraft Market: it is the place where artisans gather to sell their different handmade products. At the moment, this was the only open place and was being used only by two artisans. It is relevant to say that none of these artisans sold the traditional embroidery works, but they sold products imported from other regions, of industrial manufacture, making them pass by products "made by hand" before the tourists.



[Photo 9] Church and houses in collapse situation.

At this stage of recognition it was also found that the economic condition of the inhabitants of the city had deteriorated long after the earthquake, with many of the houses and buildings destroyed due to collapse; One year after the catastrophe, restoration work had not been carried out and the situation remained critical, where many did not have a safe home and where tourism decreased considerably



every month, as the charm of the city was destroyed by the earthquake.

[Photo 10] Houses and streets of Yanque

After the recognition phase, three local artisans were located, and interviews were conducted on their work. In these interviews, the artisans responded about how they learn to embroider, what their knowledge about Andean iconography was, what their needs were, their problems and how they thought they could help the current critical situation in the city.



[Photo 11]Streets in Yanque

After studying these responses, a group of interested parties was formed. This group was integrated by artisans, first represented by a community leader Vilma Mamani, who chairs the artisan organization "El Arte de Bordar en El Colca", two NGOs that were willing to invest resources in the project and a congregation of nuns. The first was the organization AMA, which was created in honor of Mother Antonia and helped with economic investment for the project, as well as donated land and a house where a future community kitchen could be built. The second NGO is AutoColca, which is an organization interested in the promotion of tourism in the Colca Valley and in the improvement of the current critical situation in Yanque. Finally, a congregation of nuns, who would donate their time to direct the community kitchen in the future. In a second degree of importance, some relevant researchers were contacted to learn about their experiences in Social Projects in Yanque and other areas of the Colca Valley and learn about some appropriate ways to approach artisans and the community



[Photo 12] Community Interchange Meeting

In the first community exchange, run in conjunction with Mrs. Vilma Mamani, represent the organization of artisans of the community, local artisans were not so open to hear the views or explanations of the designer, someone they considered foreign in their culture. This also responded to the fact that many other designers had approached them before, but in these encounters, the designers always took advantage of the situation, asking them to reproduce certain designs using their iconography, and then sell the products independently at prices. higher without even mentioning the hard work done by them, or giving them back part of the profits obtained from the sale of the products. Getting to express a person from the group of craftsmen that other designers used their knowledge to send them to work as if they were "factory workers." This explains why there was not much participation on the part of the artisans, since they did not have a good disposition with respect to the designers that came from outside the town

This explained why the first meeting there was not much participation from the artisans, as they had not have the best opinions about designers coming from out of the valley. Because of this in a second meeting, an exposition was held where it was explained to them the real intention and objectives of the designer. This where first to upgrade the current product they were selling and also grown the line of products, with this, the products could then be offered online at high prices. If this is successful, a percentage of the earning not bigger than 15% could then be destined to the opening and maintaining of the community kitchen. This money would be managed by the NGO organization AMA. It was also explained that even though a small percentage of the earning will be cut, there was still an estimated big improvement in their current earning if the project was successful. Also in this meeting the real necessities and problems that the artisans encountered where debated and possible solutions where planted.



[Photo 13] Artisans participating in a interchange meeting

Due to this, in a second meeting an exhibition was held where the intention and the objectives of the designer were explained again, this served to generate trust and openness in the artisans, developing an open conversation that allowed to know the needs and real problems that the artisans found during the craft of embroidery, and a debate was generated on the possible solutions before the limitations that they had.

As the meetings took place, there was some concern for people who were not attending the meetings, which meant that more artisans began to show interest in the project and increased participation. Open dialogues were generated where they expressed their needs in terms of sales management, design and product innovation.

2.3.2. Phase 2: Create



[Photo 14] Community Interchange Meeting

When the first community exchange meetings of this phase were held, the participants were shown many local Andean iconographies so that they could define their meaning, their symbolism and know the reasons why they are used in their designs. Then, it was exposed because the Andean iconography is valuable and the different ways of reading it through its symbolism, composition and language.

Although the artisans did not know many of the terms used in this explanation, they could easily understand the explanation of meanings and reading of Andean iconography, especially when using examples that used their local iconography.

This was where an exchange of ideas was carried out regarding the products they were developing and ideas for new products, which made it possible for their inventories to grow; as well as the possibility that the products are published online. If this is successful, a percentage of the profit not greater than 15% could be used for the opening and maintenance of the community kitchen. This money would be administered by the non-governmental organization AMA. Despite the percentage of income earmarked for such a project, a considerable improvement in their current income is estimated if the project is carried out successfully.



[Photo 15] Community Interchange Meeting

In another of the meetings, a list was made of the products already made and the products that could be developed according to the possibilities of the trade and its feasibility of sale. After many conversations, a final selection was made in this list of products, to evaluate the possibilities of its preparation. A palette of colors was also printed and given to artisans who had trouble shading the colors so that they looked good on the final product.

2.3.3. Phase 3: Deliver.

Under this dynamic of community exchange meetings, a logo was designed for the organization "The Art of Border in the Colca" under which they are governed, with the intention of consolidating the identity of the same. The logo is composed of an 8-sided star, which was a main element in the design of their traditional hats and represents the harmony between the celestial and terrestrial realms; and the harmony between the visible and the invisible.

The importance of representing themselves as a brand was also discussed, since this can make them more visible in the artisanal market before craft groups from other regions and thus seek to have a higher standard when participating in local exhibitions. , because being organized and presented as

a block of craftsmen, the tourist can differentiate the products that come from abroad from those that are legitimate and made by hand.



[Photo 16] Logo of the Brand

In these meetings the first prototypes and part of the work they already carried out were shown to test them, review them and talk to each other about the possible improvements and corrections to be made.

During this phase, personal interviews were conducted in the workplace of some artisans, where they told about their experiences in the trade. During some interviews, an audiovisual record of the making process was carried out, so that they can be shown in SNS and so tourists and interested people can see the hard work that is required to make each of the pieces.



[Photo 17] Justina, one of the Artisans



[Photo 18] Felipe, one of the artisans

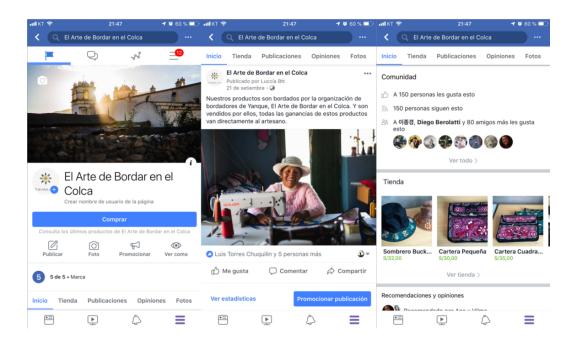


[Photo 19] Carmen, one of the artisans

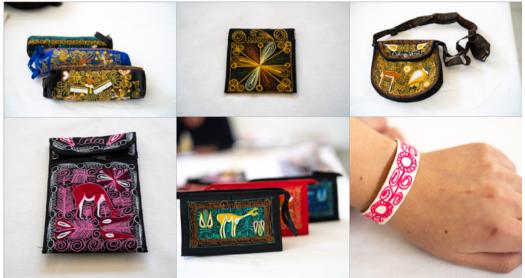
The organization AMA made the donation of a digital camera and a laptop to the local artisan organization "El Arte de Bordar en El Colca", with the purpose that this will serve as tools to sell and promote their new works.

Thanks to the donation received, in one of these community exchange meetings used for the group review of the products, a small class was developed on how to use the social network "Facebook" as a possible sales and promotion tool; as well as the basic use of a camera and some considerations when taking photos, which allows them to make a digital record of their products to be published and sold online. The participants were given a manual on how to carry out these two actions.

Then, together with the community, an online store was created within the Facebook page where the photos of the products that were intended to be sold were loaded, accompanied by texts about the history of the products and their prices. The online sale prices were established compared to the sale prices that were held for direct sale.



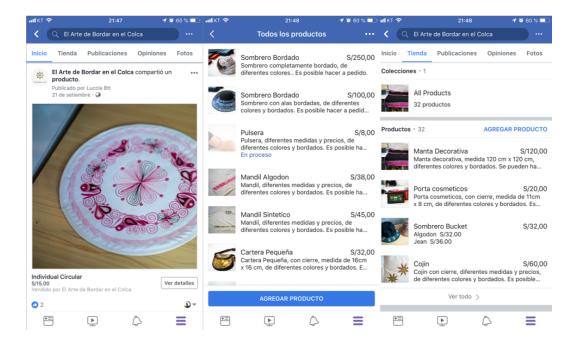
[Photo 20] Creation of a Facebook fan page



[Photo 21] Prototypes examples

Also a camera and a laptop where donated via the organization AMA to the local artisans community so that they can use it as a tool to sell and promote their new works, in class we explained the proper way to use this camera, how to choose the correct lighting to photograph the products and how to send this photos to the computer so that they can be then posted online.

After this, the final prototypes of the products were presented at a community exchange meeting and the final adjustments were discussed as a group under the supervision also of Mrs. Vilma, the organization's leading representative. A dialogue was held about the conclusion of this project; how you can continue to improve and the possibility of being part of the job again in the future.



[Photo 22] Creation of an Online Store

Although this project was only a prototype project, the artisans learned a lot about how to improve their designs, about the gradation of colors in their designs and, especially, how to promote themselves as a brand online and towards tourists.

Parallel to the development of this project, the AMA organization donated a house that can serve as the headquarters so that the community kitchen can be opened again if conditions permit.

At the same time, the aforementioned congregation of nuns expressed their willingness to be part of

the project and in the same way as Mother Antonia, directing the community kitchen project with the help of the people of the community, for which purpose the donated house.



[Photo 23] Seeing the prototypes and debating

In addition, some of the people who were helped and influenced by Mother Antonia were contacted and expressed their willingness to contribute financially on a monthly basis to help with the resources and logistics necessary to maintain the community kitchen project.



[Photo 24] Last Community Interchange Meeting

While this model was useful for making the community, artisans fell involved in the project actively to the whole process, it took a while for them to gain trust towards the designer and other important

stakeholders. The use of a Social Design Model in this project accomplished an improvement in the community self-worth and pride regarding their Andean Culture, which the results can be seen in the post project interviews.



[Photo 25] Revising the prototypes

2.4. Andean Iconography Study in Project

For the elaboration of the project a logo was designed for the organization "El Arte de Bordar en el Colca" This organization already had a name brand but they did not use a logo, because of this the design of a Brand was important for the project. This was also necessary to be able to elaborate a Facebook page and an online store.

This logo was designed with the community artisans, the star that is used in their traditional hat was used as a base. This hat is used every day by all the woman of the community and carries a lot of symbolism. This happens because in the community they believe that the greatest god is the Sun, the Inti, therefore they want to show it respect by putting embroidery in the top of the hat.

2.4.1. El Arte de Bordar Logo Guidelines



[Figure 23] Brand Guidelines for El Arte de Bordar en el Colca

To design this logo four colors where chosen, a dark blue and a light mint blue that symbolizes the colors of the rain and the clouds. A gold to symbolize the Sun Inti and a grey background. Also a fifth texture color was added to give depth to the embroidery of the logo.

Two fonts where used, one for the letters of the name and one for other uses that needed text, like their presentation cards. The fonts are fabulous Typeface and Big Caslon Typeface.

2.4.2. Study of Andean Iconography in Project Logo

A. Three Languages in Andean Iconography

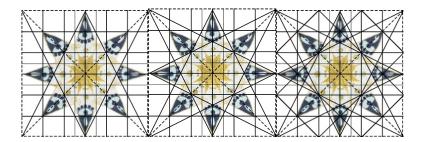
Andean Iconography uses three languages, this icon has a symbolic meaning that can be understand using the Languages as a guide.

Image	Visual Language	Aesthetics Language	Symbolic Language
	The Star	In this case the shape of the icon is both abstract and fig- urative. Because while one can easily perceive that it is a star, the details as the eye of the rain and the sun at the center need for a deeper study of its symbolic meaning.	Inti is the Quechua name of the Sun, con- sidered the most sig- nificant deity in Inca mythology. The Quechua of the Inca Empire had the Sun God on the first step of the celestial ladder, with the sa- cred name of Inti.

[Table 16] Logo Languages Study

B. Symbolic Composition in Andean Iconography

This icon uses harmonic tracing as its composition, this means that the square is the modulus and formative principle. In Andean Symbolic Geometry all process of harmonious formation comes from the square. This are defined by a "grid" or "construction net" that divides a square, rectangle or circles in a modulation.



[Figure 24] Tertiary Harrmonic Tracing in Logo

The law of the tertiary harmonic tracing plays with square diagonals and the rectangle ¹/₂ diagonals, whose crossing points mark the location of the points of the orthogonal divisions.

C. Symbolism in Andean Iconography

As symbolism this iconography belongs to the Cosmogony category because it explains the origins and power of the natural entities and interprets the religious and mythical concepts. In this image we can see images that belong to the real word, like the sun, the star, and the eye that cries but these images don't refer to the plastic or figurative meaning of their shapes, but they refer to the symbolic religious and mythical concept that defines it.

2.4.3. Project Product Prototypes

The conclusion of the Project resulted in twelve product prototypes that where designed in the Community Interchange meetings and hand made by the community artisans from Yanque.

Ν	Name	Specifications	Artisan	Picture
1	Shoulder Bag	Material: Fabric and thread. Size:24cm x 19cm Year of production: 2018 Description of the work: This product is a shoulder bag, that uses a green and mint palette embroidery with gold accents on top of a black base color fabric.	Carmen Misti	
2	Hand Purse	Material: Fabric and thread. Size:17,5 cm 26cm Year of production: 2018 Description of the work: This product is a envelope type purse that uses a pink palette embroidery on top of a black base color fabric.	Function of the second	

[Table 17] Project Prototypes Results

3	Table Path	Material: Fabric and thread. Size:120cm x 40cm Year of production: 2018 Description of the work: This product is a table path that uses a black, burgundy, freen and yellow embroidery on top of a cream base color fabric.	Vilma Mamani	
4	Pouch	Material: Fabric and thread. Size: 18cm x 11cm Year of production: 2018 Description of the work: This product is a pouch that uses a blue palette embroidery on top of a black base color fabric.	Felipe Paucarpata	
5	Placemat	Material: Fabric and thread. Size:19cm diameter Year of production: 2018 Description of the work: This product is a place mat for the table that uses a pink palette embroidery on top of a white base color fabric.	Vilma Mamani	
6	Pouch	Material: Fabric and thread. Size:17,5cm x 10cm Year of production: 2018 Description of the work: This product is a cellphone pouch that uses a green palette embroidery with brown accents onn top of a white base color fabric.	Fortunata Lambramani	

7	Headband	Material: Fabric and thread. Size:15cm diameter Year of production: 2018 Description of the work: This product is a headband that uses a green palette and a brown palette embroidery on top of a black base color fabric.	Carmen Misti	
8	Coin Purse	Material: Fabric and thread. Size:10cm x 9.5 cm Year of production: 2018 Description of the work: This product is coin purse with two pockets that uses a green palette and a brown palette embroidery on top of a black base color fabric.	Fortunata Lambramani	
9	Key chain	Material: Fabric and thread. Size:6 cm diamaeter Year of production: 2018 Description of the work: This product is a keychain, that uses a green and mint palette embroidery on top of a black base color fabric and a pink palette on top of black base.	Felipe Paucarpata	
10	Bracelet	Material: Fabric and thread. Size: 16 cm x 1.8 cm Year of production: 2018 Description of the work: This product is a bracalet, that uses a green and mint palette embroidery on top of a black base color fabric and a pink palette on top of cream base.	Justina Huaraz	

11	Earings	Material: Fabric , silver and thread. Size: 3.5 cm diamater Year of production: 2018 Description of the work: This product is a accesory, earings, that uses a green and mint palette embroidery on top of a black base color fabric.	Justina Huaraz	
12	Cushion	Material: Fabric and thread. Size: 38 x 38 Year of production: 2018 Description of the work: This product is a decorative cushion cover that uses a green palette embroidery on top of a cream base color fabric.	Vilma Mamani	

2.4.4. Study of Andean Iconography in Prototypes

In order to expand the recognition and appreciation of the Andean culture as well as extending the awareness of the knowledge and value of the product that utilizes Andean Iconography a study was elaborated on each of the product prototypes developed to study and analyze the iconography use in the aspects of Language, Symbolic Composition and Symbolism which are the Andean Iconography Components defined in the research.

N	Name and Image	Three Languages			Symbolic	Symbo-
		Visual Language	Aesthetics Language	Symbolic Language	Composi- tion	lism
1	Envelope Purse	Humming- bird at the center of flowers	Figurative and abstract stylistic character.	The hum- mingbird symbolizes the wise man who knows how to suck the nectar of life itself.	Figurative Geometric. This is fig- urative, which means that the shapes ex- plain clearly the meaning of the image.	Cosmovi- sion
2		Flowers and diffe- rent fauna.	Figurative and abstract stylistic character.	Different flowers and flora without a symbolic intention but a representa- tive inten- tion.	Modular Composi- tion. Here, the flora and fauna repre- sents graphic linear modu- lar composi- tion.	Cosmovi- sion
3	Keychain	The Sun.	Abstract sty- listic charac- ter.	Inti, belongs to the Inca gods, son of the creator god of the universe, considered the sun god	Harmonic Tracing. In this case the circle be- comes the modulus and formative principle.	Cosmology
4	Pouch	The Condor	Figurative stylistic cha- racter.	The condor symbolized strength, in- telligence and exalta- tion.	Figurative Geometric. Its figurative which means that the shapes ex- plain clearly the meaning of the image.	Cosmogony

_						
5	Shoulder Purse	Cactus Flowers	Figurative stylistic cha- racter.	Different flowers and flora without a symbolic intention but a representa- tive inten- tion.	Figurative Geometric. Its figurative which means that the shapes ex- plain clearly the meaning of the image.	Cosmovi- sion
6	Place mat	The Sun.	Abstract and figurative stylistic character.	Inti, belongs to the Inca gods, son of the creator god of the universe, considered the sun god	Harmonic Tracing. In this case the circle be- comes the modulus and formative principle.	Cosmology
7	Pouch	The Condor	Figurative stylistic cha- racter.	The condor symbolized strength, in- telligence and exalta- tion or exal- tation.	Figurative Geometric. Its figurative which means that the shapes ex- plain clearly the meaning of the image	Cosmogony
8	TOESTOORT IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	The Trucha	Figurative stylistic character.	This animal symbolices the flow of life.	Modular Composi- tion. Here, the fish and the water represents a composition that is repet- itive.	Cosmology

	1			1	1	
9	Coin Purse	The Llama	Figurative stylistic cha- racter.	These ani- mals are the expression of Mother Earth (Mama Pa- cha) in the animal king- dom and symbolize the service of love.	Figurative Geometric. Its figurative which means that the shapes ex- plain clearly the meaning of the image	Cosmogony
10	Bracalet	Cactus Flowers	Figurative stylistic cha- racter.	It symbol- izes the flowering of all good and just thoughts, feelings, emotions, sensations, perceptions and actions.	Modular Composi- tion. Here, the fish and the water repre- sents a graphic composition that is repet- itive.	Cosmology
11	Earings	Cactus Flowers	Figurative stylistic cha- racter.	It symbol- izes the flowering of all good and just thoughts, feelings, emotions, sensations, perceptions and actions.	Harmonic Tracing. In this case the circle be- comes the modulus and formative principle.	Cosmology
12	Cushion	Cactus Flowers	Figurative stylistic cha- racter.	It symbol- izes the flowering of all good and just thoughts, feelings, emotions, sensations, perceptions and actions.	Harmonic Tracing. In this case the square becomes the modulus and formative principle.	Cosmology

3. Survey

3.1. Artisans Interview

For the interview section, four of the artisans that participated in the project where interviewed. The type of interview is a semi-structured interview involving a series of open-ended nature allowing the interviewer to discuss the topics with more detail.

The following answers where received by four of the project participants.

	About the study and utilization of a Social Design Model				
1	Do you think that the development of the Project was beneficial for you as a craftsman?				
Justina	Of course, we are now more organized and have more strategies for our work.				
Vilma	Of course, it has allowed me to have other tools to do my work and other means to have more scope in sales.				
Carmen	Yes, it has served as support for our work.				
Felipe	I think so.				
2	Tell us about your previous experiences working with Designers. How have the previous experi- ences been working with Designers? In case of having had them.				
Justina	People who have come have some product ideas and always ask us to do their jobs to the greater for them then sell them in their stores.				
Vilma	Well, we've already worked twice with two designers, a person of Arequipa and Cuzco other, one developed a design that person brought and left us an order of 1,000 pieces; and the other person if we were working on several opportunities equal place in quantities, then it was good because we always had an entry when bequeathed these works, but also feel that they will earn much more product sales because we just handed them orders and they were responsible for sales under the name of its stores.				
Carmen	No, I have not worked before so designers.				
Felipe	Well, some people have come up with ideas to make products for their stores and leave us large orders. They sometimes bring some ideas for designs, but we are here doing and the like are large orders, is the need to do cheaper.				
3	Do you consider that this Project was different from your experiences in previous projects? If the answer is "yes", in what aspects?				
Justina	If you have been different because it has been a process with meetings where we reviewed elements of our culture, we have created among all new product ideas, we have learned about color schemes and all that is positive.				
Vilma	Totally different, because this project was intended to help more as artisans to assess our work and make when selling our work representations of our culture is better understood.				
Felipe	If you have been quite different, because many meetings with the daughter of the architect were given and she chatted with us about his research of iconography and gave us tools to do our jobs and out ideas for new products.				

[Table 19] Interviews with artisans

4	Do you think that the communication process between the different actors in the project was positive or negative? In what aspects?		
Justina	It was good, we always warned of meetings and we also understood well with Miss Luccia in meetings		
Vilma	Yes, it was positive at all times, there was no problem to coordinate meetings and always manage to agree despite having many ideas different ideas. There were always good coordination artisan community and people who participated in the project.		
Carmen	I think positive, because thanks to such meetings were given, could converse well with everyone and always agree to what we wanted to do.		
Felipe	Positive, because we always manage to agree on the meetings.		
5	Do you believe that the interest shown by the different actors in the project towards you as arti- sans has changed the perception you had of the value of your work?		
Justina	I could not tell, but I think that they have come to work with one here in the workshops and meetings it has helped us to see that our work has many more possibilities when creating and selling our products and that motivates one because thanks to embroidery I can support my family.		
Vilma	I believe that if, because sometimes some think as do small parts or are going through a time of poo sales, his work is very valuable, and thanks to these meetings that we had all been able to see that thei jobs are valuable and can do a lot. Also, some have been involved in some craft fairs and that encour ages them to continue the work of embroidery.		
Carmen	I really think so, because see that other people are interested in what you do is satisfactory and make one think about how far you can get something you did with your hands.		
Felipe	Well, if you feel that your work has value.		
6	Has the development of this project influenced the sale of the products in any way?		
Justina	Yes, some of the products we design together have been selling more when we go to craft fairs and have not reached some internet messages consultation with us for some orders.		
Vilma	Yes, we have orders work on some orders that we have made over the Internet, and that we could no do before, so it's a ticket for us. They have also contacted us by this means to participate in some shows		
Carmen	Yes, growth has been slow some sales, but because our jobs are more organized.		
Felipe	For me, yes, because with everything that has been done, our work is more formal and have generated more ways that you can contact one, thanks to the cards.		
	About the study and utilization of Andean Iconography Components.		
1	Do you believe that the information about the language, composition and symbolism of the An- dean iconography shared in the project is relevant to you as an artisan?		
Justina	Of course, because this is part of our tradition, that our works are discussed, and it is nice to revalue it		
Vilma	For me if relevant because one is now more aware of those elements of our culture and that makes you more valuable and you can also share it better with people interested in our work. We have to continue to transmit that to our children.		
Carmen	Of course, this information is very important because it reminds one of which is all one represented in embroidery.		
Felipe	Of course, of course, that gives more meaning to the work you do because while one has this culture.		
2	Do you think this information changed your design process in the embroidery of the products in any way?		
Justina	Not much but if you think a little more color you can use and things that can be created.		
Vilma	In my case, I still keep the same process when I sit down to work but also dedicate me a while before reviewing some color combinations and sometimes also try other designs according to what each embroidered figure.		

Carmen	If I change a little because I now work with more colors have one more knowledge about which colors are well combined together, then you have more chances to work.		
Felipe	FELIPE: It makes you think more about how they saw things our ancestors, then you learn from that.		
3	Now that you have this information about the value and symbolism in the Andean Iconography, do you have a different perception about the product that you develop?		
Justina	Yes, now when I sit down to work it feels nice to think of animals and flowers of our landscapes.		
Vilma	There is more value from our work as craftsmen, because our products contain part of our culture and you'll quickly see when people appreciate your work and are interested in knowing more.		
Carmen	For if because you have more present where everything comes and is like handing a piece of our culture through the products.		
Felipe	Of course, because we are working with something important in our culture.		
	What do you think has been the perception of tourists to see the information of the product from its symbolism and see the process of making the products, compared to their previous experience, when the tourist was unaware of this information?		
4	from its symbolism and see the process of making the products, compared to their previous ex-		
4 Justina	from its symbolism and see the process of making the products, compared to their previous ex-		
	from its symbolism and see the process of making the products, compared to their previous experience, when the tourist was unaware of this information? Some stay as thoughtful seeing the designs and sometimes ask us. I think it is positive that people can		
Justina	from its symbolism and see the process of making the products, compared to their previous experience, when the tourist was unaware of this information? Some stay as thoughtful seeing the designs and sometimes ask us. I think it is positive that people can know those representing the embroidery. I think it has been good, I feel that seems more interesting to see embroidery designs representing the products and know that this is part of our Andean culture. Also, they can see how the designs manually,		
Justina Vilma	from its symbolism and see the process of making the products, compared to their previous experience, when the tourist was unaware of this information?Some stay as thoughtful seeing the designs and sometimes ask us. I think it is positive that people can know those representing the embroidery.I think it has been good, I feel that seems more interesting to see embroidery designs representing the products and know that this is part of our Andean culture. Also, they can see how the designs manually, are made to give them more value when they are interested in our work.I think it has been positive, some have told us they thought they were products made in factories and we just sold them. I think like a lot to be handmade and designs that represent things of nature and		

The interview process with the artisans that participated of the project was helpful for understanding the real impact of the Social Design Model and the Andean Components study in the project.

3.2. Survey

As for the survey, 18 people were questioned after explaining the meaning of Andean Iconography and its symbolic aspects and value in Andean Culture.

This following are the answers to each of the survey questions

[Table 20] Survey with buyers

1	What do you find interesting about Andean Iconography from what you just learned?		
Is c	lifferent	1	
He	He did not know		
It h	It helps to know the meaning		
It is	It is used to tell stories, what they feel, what they think		
Ide	ntifies us	1	

Learn our culture, our tra	dition	2	
It brings interest		6	
TOTAL		18	
2	Which of the following features will attract product?		
Functionality		2	
Esthetic		4	
Symbolism		12	
TOTAL		18	
3	Where would you like to buy this product?		
Internet		6	
Souvenir shop		11	
Colca		8	
TOTAL		18	
4 You be interested	in traveling to a town like Yanque and to witness the traditional process of	making the	
	product?		
Very interested		7	
Interested		11	
Indifferent		0	
TOTAL		18	
5 This product is ha	andmade by artisans of Yanque and the symbolic meaning of her embroide	ery goes be-	
у	ond the representative. ¿It makes it more or less interesting for you?		
More interesting		18	
Less interesting		0	
No more, no less interesti	ing, there is no difference	0	
TOTAL		18	
6 Assuming that th	he product is distributed explaining the symbolic meaning; What was the p that he would buy it?	orobability	
Would buy more apprecia	ation	13	
You can increase my cha	nces of buying	5	
I would not change my li	kelihood of purchase	0	
Would not buy		0	
TOTAL		18	
7	Do you have comments or suggestions for artisans about the product?		
Meaning attach to produc	ots	1	
More widespread		4	
Continue to work with m	otivation	1	
Value their work because	e it requires precision	1	
	selves to sell their product	2	
Greater variety of models	-	1	
More modern designs 1			
Very interesting to learn of the ancestors 2			
TOTAL		18	

The survey process with the tourist and product buyers was helpful for understanding the real impact of the Social Design Model and the Andean Components study in the project.

3.3. Summary and Results

Interviews and surveys where developed with the aim to better understand the results of the project involving the community of artisans in Yanque as well as other relevant participants.

About the Social Design Project, the artisans believed that the development of the project has been positive for them as now they are organized under a Brand and have positive strategies for their work. As well as they Now feel they have more mediums to offer their work while also providing a wider range and more attractive range of products.

As compared with previous experiences with designers where they didn't use Social Design tools for the rapprochement towards the community of artisans, the artisans showed that while previews experienced did provide them with work for a limited amount of time they were left with lower monetary gains and a feeling of being exploited as handwork and not as craftsmen and later are not properly credit for their work.

As for the process of the Project, they felt that they revised important elements of their culture, creating between everybody new ideas for products, learn color combinations and more. As well as they felt that the intention of the project was to improve the value of the product not only for the tourist but also for the artisan, they feel that now they can shar Andean Iconography not only for the aesthetic characteristics but as a symbolic representation of their culture.

About the stakeholder's model used in the project they felt that the interaction with relevant actors of the project was positive, that the coordination with the participants of the project was satisfactory and that they felt their work was valued. Also, the interest showed by different actors in the project made a positive impact as they now see their work more appreciated and they feel they can do more than before.

As for the product and the economic influence in the community of artisans, they answered that the

sales are slowly growing, they have received already some orders via SNS, and also had been contacted by their online page to participate in artisanal fairs. Also, their presentation card and the use of their brand have been positive as their work now is seen as formal and there is more mediums for them to be contacted.

As for the use of Andean Iconography Components in the developing of the product they felt that learning about these characteristics of Andean Iconography has help them appreciate their work from the traditional and cultural stand point. Now they can share their work as an important element of their culture towards the tourist and also towards their families and children.

While they consider that the visual characteristics of Andean Iconography are important when sharing their work, they didn't feel that this knowledge drastically changed their workflow as craftsmen and that the design of the embroidery used in the products has now significantly changed. They also responded that this designs in the embroidery work is culturally taught from many generations, so other than color and placement of the design they wouldn't be willing to change the visual aspects they learned as kids.

As for their own perception of the product regarding the value and symbolism of the product they felt that their perception has changed has they now feel as sharing a part of their culture when explaining the meaning of Andean Iconography. They fell that their product has more value and is now more appreciated from the outside public.

In the aspect of tourism and tourist learning about their product from the symbolism and the process of elaboration they felt that the effect has been positive, as now tourist show more interest in the representation of the embroidery as well as the hand work in the process.

The results of the survey show us the following, the information given to the participants is founding interesting in the aspects of: The communication through symbols in Andean Iconography and it contributes towards the value of the product as it shows appreciation of the culture and traditions of the Andean community. The interviewees found the most attractive quality of the product its it symbolism.

All interviewed showed interest in the process of embroidery in the work of the artisan and showed attention in observing the process of elaboration of the product. Demonstrating to the public that this product is handcrafted by artisans of the Colca and the symbolic meaning of its embroidery goes beyond the representative made the product more appealing to all interviewees.

When asked if the symbolic meaning will affect their likeliness of purchasing the product, all interviewees responded that knowing the symbolic value of the product and the work of the artisans will make it more likely for them to purchase the product.

As for suggestions, the answer was that the product, the brand as well as the symbolic meaning of Andean Iconography most be spread further to highlight the positive qualities of the product.

V. Conclusion

Referring to the first purpose of Andean Iconography, a literature review was conducted to understand the principles, meaning, and definition. This leads to a gap of information regarding the visual characteristics of the icon.

To answer this problematic a structure model is created, establishing the Three Components of visual comprehension, this is defined as Language, Symbolic Composition and the Symbolism of Andean Iconography. Then we can interpret the composition in Andean thinking that is given by the merge of visual, plastic and symbolic aspects, that gives us the Symbolic Composition. Last the Andean Iconography can be divided in three types according to its meaning. The ones that we recognize from the real world, the ones that belong to religious and mythological images and those that come from calculated reasoning.

This research helped us to use these components served as the foundation for the development of Andean Icon products in the context of the Social Design Project with the artisan's community of Yanque. We can affirm that the study and understanding of the visual aspects of Andean Iconography help in the appreciation and principally the recognition of the visual and symbolic qualities of Andean culture. This is achieved thanks to the distribution of several Andean Icon Products, to tourist, interested parts and via SNS to the world, as well as creating a physical platform where artisans can exhibit their work, their process of creation and the value of Andean Iconography.

Additionally, the use of Andean Iconography has allowed some young people close to the artisans to be linked to the project and consequently their cultural identity has been reinforced. When this young people see designers and other participants coming from abroad showing interest in their culture, their embroidery and their iconography, they themselves feel valued and respected and begin to see their own culture with a more positive look. If this project were to be successful in the future and the products become popular in the city, this young people could then gain interest in learning the techniques from their parents and possibly continue the tradition of embroidery as they see it as a valued, respected and positive livelihood. The research on Andean Iconography graphic aspects benefited the visual design of the artisan's product, resulting in 12 product prototypes that where designed and elaborated in conjunction with the community of Artisans in Yanque, with the purpose of offering a wider variety of products and a better design. Also, a Brand was designed using the rules of composition of Andean Iconography to further stablish and structure the community of artisans, this brand demonstrates the visual characteristics of Andean Iconography language, composition and symbolic meaning.

The second purpose of the research is the study of Social Design as a methodology used to develop community-oriented projects for collaborative creation. For this, literature research is conducted referring to the definition and concept of Social Design, case analysis of projects that used this methodology, research on stakeholders as well as relevant methodologies that make reference to Social Design and Innovation Design. As a result of this, the researcher is able to develop the first Social Design Model and a Stakeholders Model for the area of Yanque. These are utilized as the structure of the Social Design Project developed with the community of artisans of the Yanque area.

Utilizing these concepts as a frame it is possible to design Social Design Model. Its centered around Community Interchange that refers to meetings where the communication, the story telling, and the discussion and debate are the center of action. This method consists of three phases, a first phase of Insertion in the community, a phase of Design and finally, a phase of Deliver. This method was used to the development of a project prototype with the artisan's community of Yanque. This model can also serve as a reference and be utilized in future projects

It was through the use of this Social Design Model that it was possible to improve in the community the sentiment of self-worth and pride regarding their Andean Culture because the model designed specific for this project where the artisans are protagonist, center of the project and their opinions as well as their work are highly valued.

Furthermore, a stakeholder's model was design for the project which improved the relationships of the protagonist of the project and stablish a sense of community between them. While this model was useful for making the community, artisans fell involved in the project actively to the whole process, it took a while for them to gain trust towards the designer and other important stakeholders. The study aimed to extend the awareness and appreciation of Andean Iconography and Culture. Additionally, it seeked to generate a contribution to the development of the artisan economic activity. Which was achieved with the use of Andean Iconography Components to develop Andean Icon products.

This study also pursued to improve in the community the sentiment of self-worth and pride regarding their culture which was achieved with the use of a Social Design and Stakeholders Model developed specifically for the community.

Reference

[Book]

- 1. Milla Euribe Zadir, "An Introduction to the Semiotic of PrecolombianAndean Design", AmaruWayra, 2008
- 2. Jesus Ruiz Durand, "Introduction to Andean Iconography", IDESI, 2004
- 3. Teresa Gisbert, "Iconography and andean myths in Art", Editorial Gisbert y CIA, 2004
- 4. Ana Maria Rocha and JuniPinzas, "Coloring Peru, Colca Embroidery", Peso Pluma, 2016
- 5. Jean Guffroy, "The Rock Art of Ancient Peru", IFEA, 1999
- 6. Juan Acha, "The Aesthetic Cultures of Latin America", UNAMCD, 1994
- 7. Carlos Milla Villena, "Genesisof the Andean culture", CAP, 1983
- 8. Eduardo Gabriel Pepe, "AboriginalDesign", Editorial del Prado,2003
- 9. Alfredo Mires Ortiz, "Iconography of Cajamarca", RedndenBibliotecasRurales Cajamarca, 1991
- 10. Guillermo Sayan P., "Huancavelica Chumpis", GSP, 1983
- 11. Cristóbal Campana Delgado, "Iconography of Andean thought", Fondo Editoria UPAO, 2014
- Uwe Carlson, "Andean iconography interpretation of symbolism in ancient Peruvian fabrics", Amaru Wayra, 2011
- 13. Carlos Milla Villena, "Ayni, Paleosemiotics Of The Sacred Spaces", CAP, 2007
- 14. Anne Van Der Zwaag , Looks Good Feels Good Is Good How Social Design Changes Our World
- 15. Noah Scalin, The Design Activist's Handbook: How to Change the World (Or at Least Your Part of It) with Socially Conscious Design, 2012
- Andrew Shea , Designing For Social Change: Strategies for Community-Based Graphic Design, Design Briefs, 2012
- 17. IDEAO, Human Centered Design Toolkit.
- Victor Papanek, Design for the Real World, Human ecology and Social Change, Academy Chicago Publishers, 1985
- 19. E,f, Schumacher, Small is Beautiful, 1993
- 20. Gernot Minke, Building with Earth, Revised Edition, 2016
- 21. Emily Pilloton, Design Revolution: 100 Products That Empower People, 2009
- 22. Nigel Whiteley, Design for Society, 1995
- 23. Henry Hongmin Kim, Steff Geissbuhler, Graphic Design Discourse: Evolving Theories, Ideologies, and Processes of Visual Communication, 2017
- 24. Renny Ramakers, Less + More: Droog Design in Context, Droog Design, 2002
- 25. Victor Margolin, Sylvia Margolin A "Social Model" of Design: Issues of Practice and Research, Margolin, 2002
- 26. Cynthia E. Smith, Design For The Other 90%, Editions Assouline, 2007
- 27. Steven Heller, Design Literacy: Understanding Graphic Design, Allworth Press, 1997
- 28. Alasraie Fuad Luke, Design Activism, Earthscan, 2009

[Paper]

1. Rachel Charlotte Smith Ole Sejer Iversen, Participatory design for sustainable social change, 2011

- 2. UP Students, "The identity as a memory and as a project. A transdiscipline tackle to identity constructions", Universidad de Palermo, 2005
- 3. BakJina, Oh Jueun, Jogyonshin, Social Design, Kookmin University, 2015
- Yanki Lee, "What Are The Social Responsibilities Of Designers? Investigating New 5. Pre spectives For Design Participation", Royal Collage or Art, 2007
- 5. María Angélica Matarazzo de Benavides, "La Madre Antonia Kayser", BibliographicEssay, 2012
- Sandra Imelda Huargaya Quispe, "Significado Y Simbolismo Del VestuarioTípico De La Danza Llamaq'atis", Universidad de La Paz, 2016
- Attfield, Judy, "The Role of Ethics in the Practice of Design.", Manchester: Manchester University Press, 1991
- 8. 박지나 오주은 조현신, "사회적 디자인", Kookmin University, 2015
- Pedro Arturo Martínez-Osorio, Marcia Barana Rodrigo Rocha-Carneiro Luis Carlos Paschoarelli, "Innovation, design, and social sustainability: New trends for local development in the contemporary world." Universidade Estadual Paulista, Bauru (Brasil), 2017
- Pauline Appels, "Design for Society: A qualitative research on the Social Design practice.", Erasmus University Rotterdam, 2015
- Jonathan Ventura & Jo-Anne Bichard, Design anthropology or anthropological design? Towards 'Social Design', International Journal of Design Creativity and Innovation, 2016
- Chen, D.S.; Cheng, L.L.; Hummels, C.C.M.; Koskinen, I., Social design: an introduction, International Journal of Design, 2016.
- Germán Mauricio Mejía Ramírez, Rhetorical Appeals in Design for Social Change, University Of Minnesota, 2013
- Jessica Vechaku, Human-centered design for Social Impact: Case Studies of IDEO.org and the International Development Design Summit, University of Californa, Berkeley, 2016
- Patricia Santillán Enríquez, "Design for Social Change: Co Design as a method to approach education in a marginalized community in Mexico", Norwegian University of Science and Technology, 2017.

[Academic Journal]

1. Kim, Jin-kyung , Nam, Ho-jung, Building Social Design System for Expansion of Design Culture

Asian Digital Art & Design Society Conference Document, 2015

- 2. Knowles and Spencee, "Designing With Stakeholders During Social Innovation Projects: AMapping And Analysis Tool", Design Society 83, 2016.
- Mario Sánchez, "Yanque in the Colca Valley (Caylloma, Arequipa). History and culture in the XV-XXcenturies", Dávila, Revista Huacaypata, 2017
- 4. Building Social Design System for Expansion of Design Culture Kim, Jin-kyung, Nam, Ho-jung, JournalTitle, Asian Digital Art &Design Society Conference Document, 2015

[Journal]

- 1. Robin Holland, "Paola Antonelli interview: "Design has been misconstrued as decoration'", The Conversation, 2013. 12. 5., Paola Antonelli
- 2. Nicholson, Sophia. "Glaciers melting fastest in South America", Alaska: UN." AFP.,2012.
- 3. Ivan Macha Valverde, "Formation rules of pre colombine design", Revista Pueblo Indio.No. 3 Perú, Febrero 1984.
- 4. Mario Sanchez, "Understanding the agriculture in the Peruvian Andes", Magazine Antropologias del Sur, Year 4, 2017, pages 235-256
- 5. Córdova, H. "Turismo en el valle del Colca y sus impactos en el desarrollo", Magazine Espacio y desarrollo, N 15, 2003

[Website]

- INEI, National Institute of Statistics and Informatics, Censo Nacional Económico, Yanque First Important Statistics, 2018
- 2. G.A. Cervantes, "About Andean Iconography Definition", guidoancori.com, 2018. 05. 1.
- 3. Armstrong, L., Bailey, J., Julier, G., & Kimbell, L., "Socialdesign futures,".2018.05.11.
- 4. mappingsocialdesign.org/2014/10/09/social-designfutures-report, 2018.05. 1.
- 5. Stakeholder,"BusinessDictionary.com",
- 6. http://www.businessdictionary.com/definition/stakeholder.html 2018.05.11.
- 7. El Instituto Nacional de Estadística e Informática Peru, INEI, www.inei.gob.pe/, 2018.03.11.
- 8. Turismo Peru, Organization for Peruvian tourism, https://turismoi.pe/ciudades/distrito/yanque.htm 2018.03.11.
- RPP News, "Information about Yanque earthquake, aftermath", https://rpp.pe/peru/arequipa/asi-quedaron-ichupampa-y-yanque-a-una-semana-del-sismo-noticia 2018.03.11.

Abstract

Development of Andean Icon Products as a Social Design Project for Yanque

- Focused on the Department of Design -

Berolatti Gonzales, Andrea Luccia

Deptartment of Design Graduate School of Design Dongseo University

Advised by Prof. Kim, Sue-Hwa

This study adopts a Social Design Methodology to benefit and improve a local problematic in the area of Yanque through the development of Andean Icon products. The research has two main purposes, the first one refers to the study of Andean Iconography from a visual and graphics standpoint. Whereas the second purpose is the study of Social Design as a methodology to develop a Social Design Model specific for the selected area. Referring to the first purpose of Andean Iconography, a literature review is conducted to understand the principles, meaning, and definition. This leads to a gap of information regarding the visual characteristics of the icon. For this a structure model is created, establishing the Three Components of visual comprehension, this is defined as Language, Symbolic Composition and the Symbolism of Andean Iconography. These components served as the foundation for the development of Andean Icon products in the context of the Social Design Project with the artisan's community of Yanque.

The second purpose of the research is the study of Social Design as a methodology used to develop community-oriented projects for collaborative creation. For this, literature research is conducted referring to the definition and concept of Social Design, case analysis of projects that used this methodology, research on stakeholders as well as relevant methodologies that make reference to Social Design and Innovation Design. As a result of this, the researcher is able to develop the first Social Design Model and a Stakeholders Model for the area of Yanque. These are utilized as the structure of the Social Design Project developed with the community of artisans of the Yanque area.

This area is selected due to the detachment of their own traditional culture. In Yanque education focuses mainly on post-colonial history and culture; which contributes substantially to the disregard and devaluation of the attributes of the traditional ancestral culture of the Andes. Because young generations are not educated on these values there is a lack of interest in continuing with the traditions of their ancestors and their culture.

On the other hand, there is an increasing percentage of poverty, more than half of Yanque's population lives below the poverty line. The situation was further worsened after an earthquake in 2016 that affected the tourism in the area which was the main source of income for the artisans of the community.

In view of the situation, the study aimed to extend the awareness and appreciation of Andean Iconography and Culture. Additionally, it seeks to generate a contribution to the development of the artisan economic activity. These can be achieved with the use of Andean Iconography Components to develop Andean Icon products.

This study also pursued to improve in the community the sentiment of self-worth and pride regarding their culture which can be achieved with the use of a Social Design and Stakeholders Model developed specifically for the community. These models can also serve as a reference and be utilized in future projects.

Keywords: Social Design, Andean Icon, Social Design Project, Yanque.