

Mental Maps of Traditional Fishermen in the Caribbean Sea

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Abstract

Traditional fishermen of Old Providence, Taganga and La Boquilla, Colombia rely on mental maps as a tool to identify the best locations to fish. Fishermen read natural signs and use geometry, arithmetic and images in the mind to create mental navigation maps for fishing in the Caribbean Sea. Life experiences provide the empirical knowledge to create oral stories and life histories in the development of mental paths in the minds ideological patrimony of the fishermen. These mental paths, revealed by the researcher-artist through drawings visualized, form a metalanguage that has its own visual codes, a visual alphabet and a glossary of images.

Keywords

Traditional fishermen; Fishermen of Old Providence, Taganga and La Boquilla; Colombian Caribbean Sea, Mental maps; Natural Signs, Empirical knowledge, Oral Histories, Paths, Ideological patrimony, Drawings, Metalanguage, Marks/Points; Sensory Image.

Introduction

This investigation is from the perspective of a visual artist, understanding and interpreting how mental maps contribute to the creation of mental navigation maps upon which the traditional fishermen of Old Providence, Taganga and La Boquilla depend, to locate optimal fishing.

The fishermen read natural signs by identifying ocean currents and the color of the sea, analyzing wind direction, the moon cycle, solar position, and even how flying birds approach the beach. Paths are made in the sea by using three fixed reference points on the shore. Geometry, arithmetic and image are often unknowingly applied as the fishermen navigate the Caribbean Sea using empirical knowledge to help them identify the optimum places to fish. This knowledge and ability, stored only in the minds of traditional fishermen, is passed down orally from generation to generation and is not recorded in any literature.

Revealing the fishermen's mental maps, two questions arise: How can information be extracted from a fisherman's mind and how can that information be communicated in the form of images?

One of the problems is the lack of previous literature on the creation of mental navigation. There are no traditional fisherman's maps and very little information on how image, arithmetic and geometry are utilized to mentally navigate the sea. Multiple areas of study (ethnographic study, social studies, biology, math, image theories, and art) are used to attain the results of this investigation.

The process used to extract the mental maps is incremental, including the ethnographic study of the fishermen's villages, oral histories, environmental problems and life experiences.

Making the mental maps visible is another challenge. The solution is to implement image ethnography which generates new knowledge: creating a visual language using a visual alphabet and visual codes that create a metalanguage through drawings.

Drawings of fishermen's mental maps are created and used in a visual dialogue with the fishermen. To present the mental drawings or maps of the fishermen as empirical knowledge, it is imperative to show that the visual drawings reflect the mental maps, describing the location of the best fishing places and the oral histories of the fishermen. These relationships and connections are verified by the Colombian Caribbean fishermen themselves.

The visual drawings as empirical knowledge reveal the 'ideological patrimony' which is "the human emotion of being or doing, individually or as a group, including natural expressions, thoughts, and a deep desire to develop social groups," (Cruz Coutiño, *Las Ciencias Sociales en el siglo XXI. Perspectivas de los estudios regionales*, 2009) expressed orally. "Including the beliefs that man

has about himself and the social world, biological and physical, in which he lives, and the beliefs about his relationships with his neighbors, within society and nature, and with other entities and strengths, discovered, accepted or conjured” (Chinoy, 1961).

Context

The Greater Caribbean, located in the American tropics in the transition zone between equatorial wetlands and dry wetlands in the Tropic of Cancer, with an average climate between 25° and 35°C, influenced by the northeast trade winds with reefs and transparent blue and green water, is a place where many oral stories are woven.

Per Gerhard, “the Caribbean space has been one of conflicts, in which interests of territorial politics, economic politics and military strategies of distant powers express themselves” (Sandner, 2003). One of the predominate problems across the villages studied is the discrimination against traditional fishermen for being afro-descendants, notwithstanding their contributions to the development of the port cities where they live and to the economy of the area through what they extract from the sea.

The fishermen relate mental images of fragmentation and isolation, the relationship of the Caribbean with the environment, the stories-songs they create the sights around them and their way of earning a living. Their unique ability to locate “offshore fishing,” as the fishermen say, has been passed down from generation to generation, developed over a long time through the creation of mental maps and practice in time and space.

Each of the three fishing villages studied in the Colombian Caribbean has a unique geography that lends itself to varied activities for the traditional fishermen, such as ecotourism.

Old Providence

The island of Old Providence is 7 km long and 4 km wide. It is located 90 km north of the island of San Andrés and 220 km from Nicaragua. Providencia is considered one of the most beautiful islands in Colombia. Before ecotourism, the island was a quiet place. Today, both diving and snorkeling are popular attractions due to colorful coral reefs, rich marine flora and fauna and the transparent water (Ministerio de Comercio, 2014).

A cultural and commercial activity, traditional fishing provides the daily sustenance of the Raizals. Due to the islands and keys of the Colombian Sea in and around

Old Providence, the Raizals must use canoes, boats, and other transportation as a mode of communication, traveling through the sea using the same empirical knowledge (mental maps) that is used for fishing to navigate from one island to another without GPS. The fishermen of Old Providence are recognized by other groups of fishermen as the “wolves of the sea,” because of their extraordinary mental mapping ability.

Taganga

A fishing village near Santa Marta in the department of Magdalena on the shores of the Caribbean Sea, Taganga is surrounded by mountains covered with desert vegetation and small trees. Known for its landscape and scenery, it has a population of approximately 3,000. The term Taganga, per some researchers, can have origins from two meanings: the first is that it could mean “serrania of snakes” derived from the indigenous words ta-gunmy where “ta” means ‘hill’ and “gunmy” ‘serpent or cobra.’ This is because in the hills that surround it, many animals of this species abound. The second would have to do with the etymology of the indigenous word where “ta” is an entry and “ganga” is the sea, which would mean ‘location where the sea enters.’

La Boquilla

Located in the north sector of the department of Bolivar on the shore of the Caribbean Sea, its northern border is the town of Manzanillo; southern side is the neighborhood of Crespo and the airport; eastern side is the Swamp of the Virgin; and western border is the Occidental Sea. Tourists are attracted by cultural activities as well as fishing. The name, La Boquilla (small mouth), comes from being the smallest of the channels that exist between Boca Grande and Boca Chica.

La Boquilla, before the arrival of Europeans, was inhabited by the tribe Calamari. “When the city of Cartagena was completely fortified, both the Corsairs and pirates entered through La Boquilla in small boats, crossed the Swamp and besieged the city from the northeastern side. For this reason, batteries (that today lie buried) were built at the entrance to the mouth. Later this area was populated by some families from villages such as San Onofre (Sucre), Villanueva (Bolívar) and Rocha. They settled in bahareque ranches, since they saw that it was a productive land for the development of fishing” (Edwin, 2009).

Mental Drawings or Maps Used for Knowledge and Location in the Caribbean Sea

Mental Drawings

The term “mental drawings” is composed of two words, defined in the article “Drawing as a location tool for fishing in the Colombian Caribbean,” written by the author of this paper. “Mental is an adjective that refers to the mind (a dimension of thinking or reasoning ability).” “Drawing is a form of graphic expression, putting images on a flat space... is considered a universal graphic language that has been used by humanity to communicate ideas, projects and, in a broader sense, humanity’s ideas, customs and culture” (Leotteau, *El dibujo como herramienta de ubicación para la pesca en el Caribe colombiano*, 2015). The idea of a drawing as a representation of objects and words leads us to the visualization and materialization of spiritual and cultural elements.

Mental drawings or mental maps show the relationship between the elements of nature and man. In the case of the fishermen, mental maps and show the relationship between science and art. Furthermore, the interpreted drawing exemplifies the visualization of the experience found in the mind.

The mental maps created in the fisherman’s mind are based on life experiences. Ideological patrimony in the world of traditional fishermen is revealed in the images. That is, they show how the traditional fishermen experience their lives and the illusion and fantasy that exist in their world, both on the surface and in the depths of the sea.

During the interviews with the researcher-artist, the traditional fishermen’s responses to questions are accompanied by expressive gestures and motions often using the hands as an expressive map upon which an image in their minds can be displayed.

For example, when a traditional fisherman from La Boquilla, Santa Pri, discloses information about a good fishing location to the researcher -artist, the first thing he does is to show its location using his hand: identifying the places he has observed using his own names for them. He shares that “light red” is a good fishing area in the sea. “Light red” is an area of sandbar that is not visible from a distance. When one arrives by boat, at the bottom of the sea through the crystal-clear water, the sand can be seen and at the end of the white sandbar area, a red spot can be observed. Santa Pri tells the story that at one time, a big ship with a red bottom ran aground and left the stain of its color behind. He calls this area

the “light red.” To locate this place, he finds three fixed points on the beach of La Boquilla. The point at the end of a rocky mountain beside the sea, he calls “yellow tip.” On the other side, a white building can be seen, hence “white point.” With those two points as references he draws an imaginary line. A third fixed point is located between both on the beach, a taller building he calls “the branch” to complete a triangulation. As the boat moves toward the open sea, he is always looking at those points. He does this mentally; does not write it down nor does he tell any other fisherman. Santa Pri keeps these coordinates guarded in his memory.

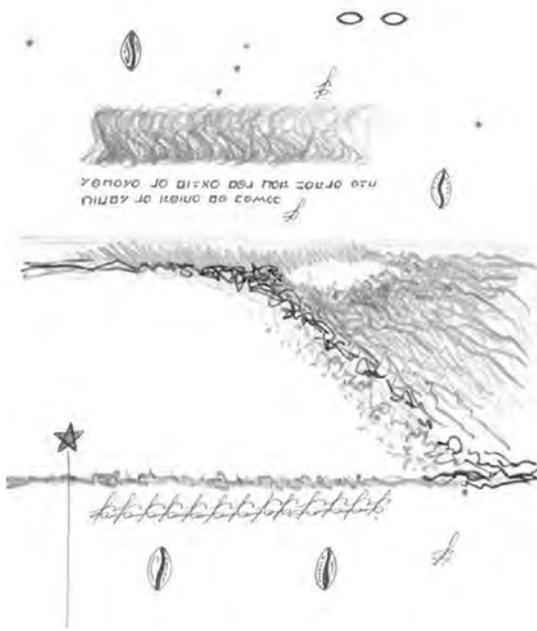
Each fisherman with this ability locates his own fishing places and identifies his own marks for triangulation, location and movement over and of the sea. Mental location with points is hereditary knowledge, passed down from parent to child, so that those in the lineage learn to locate and not get lost in the open sea. Not every fisherman possesses this ability.

The methodology of the internal narrative as seen through these drawings is shown by Sara Pink in her analysis of image and the use of visual data is found in the qualitative research of Marcus Banks (Banks, 2015). These methodologies support the visual analysis of a narration. When Santa Pri narrates his oral history of the “light red,” the researcher-artist analyzes and recreates the image on paper as he listens. The fisherman then endorses the drawing created and makes his own image with his finger in the sand to confirm with the researcher-artist the location of the “light red.”

This research project yielded two chapters relating to the visualization of the images. One chapter is dedicated to the interpretation of the image and the other to the visualization of those images created by the researcher-artist. The oral image is transferred to the visual image through the creation of new visual codes, where those images become visible. The following drawing, figure No. 1, “Remembering Cindy’s Dream” is an example of the visual image of Santa Pri’s memory of his wife’s dream.

In Cindy’s dream, the sea goddess spoke to Santa Pri telling him to untangle his anchor that had gotten caught on the bottom but also to be careful of a big fish. Santa Pri tells the story that one day when he was at sea, his anchor became tangled and he quickly dove into the water to untangle it. As he began to work the anchor, he became frightened when he noticed a huge fish nearby and remembered the dream his wife had told him some

time before. He was truly frightened because he had never seen such an enormous fish.



Drawing N ° 7

Artist: Fabian Leotteau

Title: "Remembering Cindy's Dream"

Technique: Graphite and ink on paper

Dimension: 21.59 cm x 27.94 cm

This drawing represents the feelings of Santa Pri in his encounter with the huge fish, and the emotions and feelings he experienced related to his memory of his wife Cindy's dream.

The research for this project was conducted on twelve weekend visits to two villages and three trips to Old Providence, due to budget limits. The reduced number of visits to the last village did not affect the results of the interviews because the fishermen from the third village were previously known to the researchers so relationships and trust were already formed.

Before beginning the study, the researchers assembled a list of questions to present to the fishermen. In the villages, which were initially unfamiliar to the

researchers, the project began by approaching a person who was close to the community's fishermen. The research project and its objectives were explained and the community was asked if they were interested in being a part of the endeavor.

The researcher took the time to get to know the people. The process of developing trust and creating relationships began the following weekend. The fishermen were invited to the home of their leader for a 'sancocho' or feast. While video recorders were recording and stories were being preserved, each fisherman was asked to say his/her name and to share a personal fishing feat. Some drawings by the researcher-artist were also shared with the intent to start conversations concerning the project. Heitor Alvelos, this thesis' advisor from the Oporto University, Portugal, recommended that at this point in the process, the social methodology which relies on these primary introductions as a sort of "false interview" be used, because normally memories are not shared with newcomers. In addition, behaviors and social relationships were identified within the community to identify it as a social laboratory, as did Robert E. Park of the School of Chicago of the University of Chicago.

On a subsequent weekend visit, under the shade of a mango tree, as videos were being taken, each person introduced him/herself again. The fishermen were more comfortable by this time and as they joked, they used many nicknames for each other.

Extracting mental images or drawings from a fisherman's mind is accomplished by first identifying who has the ability to geo locate because not every fisherman has the same ability. After that, the mental image of his exploits or experiences is mapped. The first mental map drawing extracts the ideas as well as the verbal and gestural expression of the fisherman.

On another visit, while the researcher-artist was meeting with Santa Pri on the shore, he suddenly exclaimed to his fishermen friends who were near, "Look, look at the lebranche! Tomorrow a school of them are coming and I will organize a fishing trip." The researcher-artist looked into the waves, but only saw the foam of the waves and did not see any fish. Later, when he sat down with Santa Pri and asked him what he saw and how he saw it, he was told that Santa Pri had seen flashes of bright lights in the waves and that these were signs of the lebranche. The researcher-artist asked for an explanation of what the bright lights were. Santa Pri sat quietly, joined his fingertips in the form

of stars, closed his eyes, and puckered his lips into a whistle, all this to explain the flash of light. Through more investigation, it is discovered that the image in his memory is accompanied by that expression. Again, Santa Pri proclaims, “Look at the waves, there they are!” The researcher-artist looks into the surf but he sees no fish.

Analyzing the images, the first mental drawing is of oral and gestural expression, the second is of the memory of the fisherman, the third drawing is a contextual image and the fourth an analysis of the videos, voice recordings and photographs. The researcher-artist classifies these images and creates visual codes that he has identified during the interviews to generate new knowledge about the ideological heritage of fishermen. To verify these images and the information that appears in the drawings, new ones are created to show the fishermen. The drawings must be verified and confirmed by the fishermen to validate them.

As the researcher-artist creates the drawings, beginning with the interrelation of the images found, similarities of the images and the way of articulating them are used to identify verifiable information in the creation of the mental maps in each of the villages. Then, in each village, the convergences of fishing activities and the creation of navigation maps and fishing exploits are sought. A new image is drawn and it is shown to the fishermen for verification. These drawings are a creative process that goes from the fishermen’s mind through different supports of the image and then generates a new drawing as another support.

Energy and decisive action is evident in the creation of the drawings of the mental images. In this sense, we rely on Antonio Rabazas when he declares, “three concepts seem fundamental to us in art: matter, energy and information. An artist injects energy into the material to create information” (Rabazas, 2004). The drawings by the researcher-artist represent matter, energy and information interwoven in the brain creating an image. The energy from the stories from the fisherman’s memories is captured and applied in the images. The image is taken to the visual, not imitating what the fisherman says, but recreating visual codes extracted from the fisherman’s mind. There would be no value to visualize what the fisherman says literally. Where would the creativity, matter, energy and transfigured information be?

The art of this researcher-artist gives a new meaning to natural signs of the Colombian Caribbean.

The Ethnography of the Sensory Image

This research is developed incrementally and is based on ethnography through field work in three traditional fishing villages in the Colombian Caribbean. Spending time with the fishermen of these villages, the researcher-artist and cameraman earned their trust with the goal of collecting relevant information providing the primary source in this study. The traditional fishermen share their knowledge through the spoken word in interviews recorded in video and audio. The recordings of the oral histories and life stories of the fishermen are analyzed for understanding. The ethnographic process allows images from the brains of traditional fishermen to be extracted so they are visible. Moving from the spoken word to the visual image, drawings are created by the researcher-artist.

The traditional fishermen’s mental maps have meaning, which is understood initially, but in order to record these images it is necessary to rely on a new means to visualize them. To gain even more clarity and understanding, the researcher-artist then creates different images with visual codes and a metalanguage. The sensory ethnography of the image is then supported by means of photo elicitation as in Sara Pink’s book (Pink, *Doing Sensory Ethnographic*, 2012). This enables the fishermen themselves to recognize, validate and verify the same images they had previously narrated to the artist.

Empirical knowledge is possessed by those who fish. Humberto Maturana discusses “the biology of knowledge... If someone says something, I hear something, but what is said is determined in me. He who listens determines what he hears, not he who speaks. This is very important because it defines what you hear. One would have to listen to the other when he says something, if he honestly wants to be heard when working together, because one can say something in a fourth domain, and be heard in another domain. The other must do the same if he wants to collaborate” (Maturana, 1996). Maturana’s “biology of knowledge” demonstrates the importance of knowing how to listen and how to have patience, virtues vital to this study. Another skill relied upon for this research is listening with the intent to analyze. Careful listening and much patience is required to identify how fishermen locate the marks on the shore, making mental lines as on navigation maps, the mental paths used to move through the Caribbean Sea. Referring to images and the way

images are interpreted, Paul Klee proclaims, “art does not reproduce what is visible, rather it makes it visible” (Chaplin, 2002). The images visualized from the minds of fishermen have codes that go beyond what is observed with the naked eye, including interpretation of emotions (ethnography of the sensory image) elicited during the act of fishing and how these experiences and feelings are related to the visual images, which lead us to see beyond the visual codes.

As the researcher-artist showed the fishermen the videos of their own interviews, the emotions and feelings expressed gave to the artist more depth and a clearer understanding of the ideas documented in the images being put on paper.

Visualization of the Drawings Created by the Researcher-Artist

The world of the traditional fisherman is full of emotion, imagery, symbolism and fantasy. The act of drawing brings forth the interpreted image, containing many symbols and revealing sensations and actions as an integral part of the story told by the fisherman. In turn, the researcher-artist offers the images to each fisherman for his reflection of how he sees his world.



Drawing N ° 25 Artist: Fabian Leotteau

Title: “Dance with Feathers”

Technique: Graphite and ink on paper

Dimension: 21.59 cm x 27.94 cm

The complexity of drawing enables a meaning to be derived from life experiences. Drawing opens a door to cultural identity. “Ideas will gain in expressiveness only by elaboration through mental processes. For Arnheim the basis of thought is the human capacity for abstraction. In addition, he distinguishes two types of expressive thinking: the intellectual and the intuitive. The latter is based on the productive - that is, the creative - thinking of the sciences, the arts and design” (Bürdeck, 1994). Consequently, the fishermen’s capacity of intuitive mental map making shows the capacity of humans for abstract thought.

WJ Mitchell comments, “To derive a model of pictorial self-reference from art or language I want to experiment with the ideas that the images can reflect on themselves, capable of providing a second order discourse that tells us - or at least shows us - something about the images. So, my procedure will be

of ekphrasis. That is, I will only try to offer to make faithful descriptions of a series of images that, in their own way, seem to be self-referenced. This poses an obvious problem for the pretense implicit in the concept of “meta-image,” which suggests an attempt to construct a second-order discourse on images, without going into language, without acquiring eclecticism” (Mitchell W., 1994). Therefore, the artist’s drawings of the fishermen’s mental maps, are the product of the analysis of the images, from both video and audio. The images created are a new metalanguage, through points and lines of graphite and ink, of visual dialogue. New interpretations are generated from lines and points in the new drawings generating a ‘meta -image’ which are later converted into visual dialogue known as “ekphrasis or ephrasis, from the Greek for the description of a work of art produced as a rhetorical exercise, often used in the adjectival form ekphratic, is a graphic, often dramatic, verbal description of a visual work of art, either real or imagined. In ancient times, it referred to a description of anything, person, or experience (Harrap, 1993), a system that was created to better understand works of art.

The mental maps correspond to the fishermen’s knowledge and mental navigation charts for successful voyages through the Caribbean Sea to the best fishing places. These mental navigation maps are instruments of empirical and intuitive navigation. As Julio César Goyes maintains: “...and without the oral and written navigation charts the hypertext navigator cannot go to any part of it” and further states that “hypertext is the desired freedom and that the author can be autonomous and creative” (Goyes, 2003). In this sense the mental navigation charts of traditional fishermen are not visible but without them the fishermen cannot successfully sail the Caribbean Sea. Fishermen determine their fixed points on land, identified as central axis of location as if they were coordinates to move through the sea, and to identify where they leave the fishing traps. This process requires that the fishermen locate two fixed points (x, y, y z), and the boat (a), also known as triangulation, that moves in one direction through a moving plane, the Caribbean Sea. Therefore, it can be observed that fishermen are empirically and intuitively resourceful. They visualize marks or points on shore and keep them in memory, to keep from getting lost at sea.

The fishermen create their own symbolic world from their experiences based on where they live, using marine and social images, converging in imaginaries

(subjective expressions of group self-conception) (Salmeron, 2011). As Salmeron says, “In this way, to look, to act, to ‘behave,’ to identify oneself or to value socially have their place in these imaginaries, those that are in permanent process of formation and change, and specifically the transformations experienced through optic technology, as well as in the chemistry of the physiological processes. Hence the imagination also creates a sort of bridge between the subjective and the social, within an intricate set of symbols and actions. Thus, the type of gaze, the tastes, the formulation of the aesthetically “correct” and the representation of all this sociocultural environment, the same as the artistic manifestations, that in the field of psychology, that of biology, physics or optics or other disciplines and in all types of sensory perception of humans” (Salmeron, 2011). It is noteworthy that the analysis of moving images begins to awaken a series of sensations about the representations of the sea floor by color, optics and how to see in that dreamlike reality felt when analyzing images of the depth of the sea.

The drawings created by the researcher-artist are the extraction of the experiences and mental maps of traditional fishermen during the investigation, revealing the ideological patrimony of those fishermen. The system of ekphrasis helps the viewer to comprehend the drawings created by the researcher-artist better, describing each drawing in terms of internal structures, technique and concept with a goal of greater understanding.

The drawings are presented as visual interpretations to two fishermen, to verify each drawing’s accuracy concerning the stories told and fishing practices pictured. One fisherman, Ricardo Amílcar Avendaño a past student of Fine Arts, possesses an understanding of the process of drawing. He is a vital resource that strengthens the research due to his knowledge and experience in both fishing and drawing.

The drawings, or visual interpretations, are integral to allowing the viewer to see the results of the investigation. The analysis of the drawings of movement is a creative process that truly enriches the information collected. As often occurs, the creative progression generates resemblance, convergence and new images in visual thought where the word does not exist, as alluded to by David Bohn in his book, *On Creativity* (Bohn, 2002). These new images generate new ways to observe the location marks, experience the exploits and attain greater understanding of skills and tools used by

traditional fishermen. The results of this investigation produce new knowledge and reveal the ideological patrimony of traditional fishermen.

In the drawings two important aspects are observable. The first can be identified as presentation and visual support: expressions that the fishermen themselves identify in the drawings, visual systems with autonomy full of signs and symbolism which evoke a dialogue with the viewer.

Presentation manifests through the intensity of the line, the movement in the sketch, the sequence and the continuity of line, dots and spots or stains of color, executed with the technique of graphite in its different intensities and colored inks, applied to paper 21.59 cm x 27.94 cm. The second observable aspect is visual dialogue: the results are revealed through a visual dialogue the researcher-artist communicates concerning the results of the investigation extracted through visual codes in a metalanguage. The drawings not only identify fishing locations but also how the fishing exploits are verbally expressed, with emotion and energy, containing information that only exists in the memory of the fishermen. These stories sometimes reflect fantasy versions from the memories of the fishermen themselves. Retold, during daily tasks, and embellished each time with imaginings of the fishing world, the imagery of the villages studied becomes somehow more significant as repeated and often fueled by the emotions and feelings which are displayed as the stories are shared. As the audio and video images are being analyzed, notes are taken as drawings. The stories are decoded and then coded again visually, moving from the oral story to the visual image.

The lines, dots and spots of color create a metalanguage in the new image, so the message conveyed displays the mental maps of the traditional fishermen. From the notes of the researcher-artist the analysis of images is observed. A glossary of images is then created, defining the relationship between words and images in visual codes through a metalanguage that result in a visual dialogue.

It can be said that mental maps focus on the space-time schemes in the cultural context of the fishermen as well as on the exchange of symbolic worlds initiated in their own reality. The researcher-artist is interested in establishing visual codes to make these images visible within the consideration of what represents art and what does not.

Fishermen rely on memory to create paths or mental maps with points of location to find the best fishing. It is fascinating to observe that when the fishermen decide to meet to go fishing, they already know where they are going. In fact, the empirical experience of this knowledge possessed by fishermen allows a reflection on the articulation, divergences and similarities in the creation of these mental maps and their function for the benefit of the community.

There are several components that contribute to the complexity of the mental map including the social sciences study of emotions and feelings, recognition of site geography (water currents and wind direction), the depths of the sea, the displacement of an object (the boat (a)), on a plane (x, y, y z axis diagram), in constant movement (the sea), and the color of the sea and its behavior (characteristics). All this information makes the mental map stronger and more complex.

The fishermen's mental maps are complex but their purpose is clearly the location of outstanding fishing. Mental maps are tools of knowledge including all the components previously mentioned, but also containing individual visual codes and symbols specific to each fisherman and therefore non-transferable from one fisherman to another. A fisherman, in his own mind and imagination, creates mental maps to locate himself on a moving plane. These empirical resources are what make traditional fishermen's mental maps truly complex and unique.



Drawing N° 3

Artist: Fabian Leotteau

Title: "Lakari's world"

Technique: Graphite and ink on paper

Dimension: 21.59 cm x 27.94 cm

This drawing is the interpretation of Santa Pri's description of his mental images. This image shows a fight between the aviary and marine worlds where many small fish (lebranche mullet) are being brought in by the waves and a heron is diving into the waves to eat them. Due to his knowledge and experience, Santa Pri immediately encourages his friends to join him on a fishing trip the next day, because he predicts that the next day they will find many of these fish in the sea. Indeed, the next day, when the community goes out to fish, they bring in a large catch. The sequence of images or mental maps can be visualized as follows: The first drawing is the fisherman's location map. The second drawing is the fishing experience. The third drawing is the fisherman's oral and gestural story. In each image the emotions and feelings of the story are visualized. The

researcher-artist then analyzes the images using visual codes that have been identified from the fishermen to create a final drawing. The last drawing is then taken back to the fishermen for them to validate it.

In conclusion, fishermen's stories begin on the water. To keep from being lost at sea, and to return to the best fishing places, certain fishermen have the ability to create mental maps using their own marks or points as exemplified in this paper by Santa Pri. These mental paths, revealed by the researcher-artist through drawings visualized, form a metalanguage that has its own visual codes, a visual alphabet and a glossary of images. Here, the ideological patrimony originating with and confirmed by traditional fishermen is recreated by the researcher-artist.

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