

FOND

TOILE

LANDSCAPE NATURE

PAISIBLE

***TEST**

CITY

RECYCLERS

NAGE

MUSICALITY

GLACIAL

VENT CHAUD

(35 sec.)

MINI-ROBOTS

COCOON-BLANC

(- NANO -)

VOCAL

SPACE OPERA

TRAJECTOIRES

COCCINELLE VOLANTE

SYNTAXE

DANCE & MOUVEMENT

METEORICAL

MINIDRONE

A POSTHISTORICAL CITY : A POIETIC

A MUSEUM ONTOLOGY

-KUHN, RUSSELL-

by Vannia Natalia Miranda Y.

A contemporary theoretical approach about the concept of construction of cities is needed to start deepen my proposal.

We present some contemporary urban concepts related to the construction of cities, especially from the exact sciences and dynamics, they are trying to understand the city as a whole, in some cases it will be understood as an interdependent organism that reaches its own limitations and some other as a dynamic system of energy self generated constant change.

The concept of "emergence"

The concept of "emergence" explains the entire qualitative changes that are spontaneously generated by a system. The properties of this behavior are the interactions between all the different parts of the system, that is to say, they can not be reduced into individual components in absolute. (See Theory of emergent systems)

Like the butterfly effect, in which a small change can drastically change the behavior of long-distance non-linear system (see Chaos Theory), emergent behavior is more than the sum of its individual components.

This type of discourse comes from science and, in particular, from research on the complexity. Absolutely we can use this concept from a sociocultural perspective when we refer to a new acquaintance arrives as an irruption in our context. For example, when we observe areas of the planet that was not in contemporary cultural mapping and begin to shine by themselves, can we define as areas or emerging process?

The city in this perspective can be summarized as an addition of elements or static entities, mobile, physical, statistical or societal constantly interacting with different ways of behavior in a given space: this characterization would present the city as a dynamic system.

According to the emerging systems theory, the city can be understood as a "body" with a coordinated global behavior that is born minimum scale of the interrelations:

For example, neighborhoods, at this level of the scale, can be included as formal and rhythmically contradictory repetitions in different time sessions: what becomes coherent in a variety of spatial levels and infinite perspectives, allowing for achieve a coherent and efficient behavior as a whole. In this sense, the theory of emergence is trying to show that from the basic interactions (immanent and transcendent) can arise human culture.

For this, the city is presented as an interesting example of the way in the emerging systems question the division between the natural and the artificial. The city, what traditionally presented as the

paradigm of artificial (created with a purpose and in a controlled manner), observing as an emerging system loses its artifice quality.

This way, when you create and designate a master plan, the city is seen as an accessory of existence: beyond its construction, it is over time.

These auto-generating systemic urban processes in cities especially if living like Paris, this constant exploration of new ways to be created ad infinitum as viewpoints exist express a vital need for self contradictory affirmation always leads to ask me questions hypothetical on possible ways of existence (or survival) in future. Right now, I realize Me-moria ** which is an interactive installation, a moving spatial construction in which I work with some common phrases –clichés- of collective memory through simultaneous robotic constructions of movement, sound and light.

In this sense, my installation proposal combines sensory and poetic exploration in spatial processes and construction of cities while related generative processes of architectural design and their application in the generation of sound and his own composition (See: chains Markov functions of randomness, chaotic functions, stochastic, and technical systems developed by Xenakis. See also Iannis Xenakis, Stockhausen H. K, Olivier Messiaen and Pierre Boulez)

From this point of view, a way that I find absolutely fascinating is the one related to the use of smart materials in the process of construction of cities: from nanotechnology, basically nanorobotics, this type of intelligent organisms is surprising, able to interact with its environment, change color or shape or repair itself in a process called for increased intelligence.

While from the Biomimetic and hybrids, such materials are already used in medical research to eliminate cancer, infections, or production of synthetic foods. In an era revolutionized by the medicalization of society, we are asked about our condition as human beings and beings-in-the-world.

For example, from the so-called genetic city models, in which trees could be genetically created to illuminate the cities, creating skyscrapers with new forms thanks to the properties of smart materials, GFP is used produced by the illumination of certain jellyfish. This type of approach would reveal the world of large-scale manipulation in smaller and elementary structures: nanotechnology, genetics, art and architecture.

VANNIA NATALIA MIRANDA Y .

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**CONTRADICTION/SUPERPOSITION/STRATIFICATION/TRANSFORMATIONS/MUTATION/
EXPANSION/INTERRUPTION/ENTROPY/ROBOTICS/POSTHISTORICAL CITY/HUMAN BEINGS/CITIES/
BIOMIMETICS¹ /HYBRIDES²/ GENETICS ARCHITECTURE³/ BIOLOGY⁴**

1

Biomimetics is inspired by the life skills to equip robots with similar properties: it is based on solutions developed by animals and plants in their natural environment end to develop new materials and solutions to specific problems.

2

Hybrids, derived from a combination of biology and electronics, could revolutionize medicine overcomes the weaknesses of certain organs.

3 See page 75 of my Master Thesis , 2009: Imaginary city or building a promised land. The city as a system of emerging experiences. UFR Arts and Sciences of Art , University of Paris I - Sorbonne Library .

4 Cf. Game Theory for Biologists.

01

LADYBIRD'S TRAJECTORIES - A TRAJECTORY OF CITIES

-ROBOTICS ARCHITECTURAL INSTALLATION-

Ladybird robot

Project 1:

01

INSTALLATION:

- LADYBIRD'S TRAJECTORIES -

A TRAJECTORY OF CITIES

INSTALLATION TECHNICAL REQUERIMENTS

VIDEO

- *2 data Video projector,
1024 x 768 resolution for each
2000 lum at least,
for a projection as large possible
(6 m x 4.5 m f.e)*
- *2 projection screen
as large as possible
(6 m x 4.5 m f.e)
at back of stage*
- *2 video monitors for video foldback (12")*
- *2 personal computers*
- *2 VGA cables
long enough to connect PCs on stage to the beamer and more if necessary*
- *A video technician.*

SOUND SPACIALIZATION

- *Max/MSP visualisation sonification engine (+ SQL server, Pure data program, etc.) (-an Arduino platform e.g-)*
- *Sound system –mains and monitors-
active 3-way system with adequate bass response
for electronic music
(minimum: 1000W/channel stereo + 1000W subwoofer)*
- *4 x DI (direct box)*
- *1 mixing desk: 8 inputs, stereo outputs, monitor foldback out*
- *1 mic stand (for the theremin) – sm58*

- 1 HK system
- 1 Piano ¼ Q
- Sound engineers for front of house and monitors.

LIGHTING

- We request a lighting engineers to provide minimum 3 PAR (56 e.g) or spots (mini-cut up e.g) to illuminate the stage without interfering with video image.

ROBOTICS & MOUVEMENT

- 4 pairs of mouvement sensors for an Arduino platform and the robotic system.
- 4 pairs of lighting sensors for
- 4 pairs of sound sensors for

DRONE, IMAGE & MOUVEMENT

- 1 small drone 2.4GHz 4 digital way system with integrated video camera and LED lights:
 - small radiocontrol intelligent system drone.
 - guidance at 360 degrees looping.
 - long range distance control.
 - high performance suspension flight.
 - time flight: 7 minutes at least.

STAGE

- Installation and concert elements on stage, see stage diagrams.
- 2 keyboards stands X
- 1 3D printer
- 2 boards for keyboards stands: approx 70 cm x 40 cm

- *AC 220V, three power points onstage (near each mini-robot dancer performer)
4 outlets each (near each installation element)*
- *Electronic engineers for mini-robots and Arduino platform.*

INSTALLATION: SOUND, MOUVEMENT AND VIDEO CHECK

- *Load-in, set up, assembly : three - five hours*
- *Sound and video check, lighting check: one hour a half*
- *Break down: 45 minutes.*

Attended results:

- *Short Films*
- *Sound research*
- *Prospective projects*
- *Installations*
- *Performance*
- *Etc,...*



Knossos

“PROMISED LAND” (2005)

Documentary

Time: 35min .

Director and concepor: Vannia Natalia Miranda Y.

SYNOPSIS

This is the story of Maria, a girl with dreams and hope to achieve happiness in her life; doña Maritza, mother and director of a social program called “Vaso de Leche” (the 'glass of milk program') of the place she lives in; and Isaac, a 3 year-old boy who looks forward to own everything he wants. They are all inhabitants of a poor area called “Tierra Prometida” ('Promised land') , site at Lomas de Carabayllo, outside of the modern city of Lima. This is a desert, a sandy area where 30 families from different parts of traditional Lima live, place they reached with their parents from different parts of the central and northern highlands of Peru. Alike the majority of inhabitants of this rural area, they came with their families by “invasión”, looking for a place to stay, grow and progress, cities for living, not ghost towns to die or survive as ghosts. This is a place where people live, grow, love, develop and continue growing. Most families are young and dysfunctional, with the mother being the head of them.

First, they look for a decent home and private property: right now they live in huts with no basic services, no water, no sewage, no electricity...they look forward to become legal owners of the land they use, today they are only “posesionarios” (possessors); water arrives through

water trucks once a week with a price 10 times higher than in the city of Lima: 1m³ (1,000 liters) costs 7.50 soles, while in Lima the price is 0.80 soles, approximately.

Since this is an area where clay is burnt for the production of bricks, there are high levels of pollution; there are many illegal companies manufacturing bricks, the levels of lead and toxic residues is highly polluting due to the burning of lime (“Tierra Prometida” (‘Promised land’) lies next to a mine).

Despite being part of the district of Carabayllo, the zone of Lomas de Carabayllo (Carabayllo hills) is far away from it since the Chillón River tears in two the district, so that this area has no real connection with the rest of the district, making impossible its development. It’s a need that this area connects to the city, be part of it, so that a plan or urban growth takes it into consideration, so that they stop being socially excluded. Nowadays this area does not figure in the map of Lima, and there are no official statistics studies of it. These inhabitants don’t figure as citizens, their identity has been taken away from them, their existence is denied, and their hope of living and being has been torn; they limit themselves to survive.

Lomas de Carabayllo is surrounded by huge garbage disposal areas; in fact this was originally the big garbage disposal area of Lima in the 60’s (this is the case of Jerusalén II). However, and ironically, this garbage gives job especially to the children, since lots of them recycle it, but causing them skin and respiratory diseases. Because of the presence of non-recyclable garbage (like plastics) it is not possible to convert this into a green area.

The daily work of most of the inhabitants are: construction workers, extracting clay and minerals, burning electric batteries to recycle them (generating lead pollution),

separating garbage for recycling and selling; policemen, teachers, nurses; washing clothes, cooking, selling flowers.

Despite these problems and needs, there is a strong solidarity and good neighborhood relations among the inhabitants; they can organize themselves, and they want to get along with their lives, progressing and leaving poverty behind with a decent life. After work, mothers play volleyball every afternoon as a means to escape from stress and maintains the union and solidarity of the community before they come home to their families and children, no matter how tiresome the day was.

Introduction of the documentary, my voice in off:

"Tierra Prometida, Promised land, is a human settlement ('favela') located in the high parts of the hills of the district of Carabayllo, 45 minutes from the center of the city of Lima, an area that in the '60 s was one of the garbage deposits of the capital-city. Currently live around 30 families, migrants from the north and center of the country who came there in search of a decent life with dignity, their own home and today survive, with their large offspring, in huts without basic water services, drain, lights or electricity: They are the excluded, those who do not exist as citizens, those who are ripped out from children the hope of being and living, and they only subsist."

ABOUT "FAVELA " AND" RECYCLERS CHILDREN ". INTRODUCTION

In my proposal I address the problem of "**working children**" focusing, in particular, on the "**child recyclers**" and their **relationship with the city**, since they they maintain with it a particular **survival relationship** fulfilling a **function** of "**cleaning the city**", pushed by special circumstances due to **poverty, invisibility** and **exclusion** of which they are a part. The game forms a fundamental part of the construction of the children's imagination, since it is in the daily playful universe of the child that their identity is being constructed.

Because of this, I have chosen as a metaphor the "Labyrinth", a traditional children's toy in which a silver ball must travel a small circuit of false tracks in order to find its way and thus reach its goal and win the game. This game is a perfect analogy to the real journey made by recyclers in their search for their survival material, an activity that is also carried out by their entire family, visiting different areas of the city, choosing recyclable and obsolete objects. classifying them by material: first plastics, then glasses, cartons and / or metals.

It is in this context that a city like Lima is seen and perceived as a space of great inequalities where the most affected are the children from marginal excluded families who are building their identity relationship through different socializing agents -family, community, work- from its interaction with this emotional and physical space from a still playful perspective within its imaginary.

In this sense, although the "**construction of a city**" is understood as the physical construction of space and form, it is also understood as the perception and symbolic construction of the living territory of which it forms a part, which we face every day , creating our own daily universe, building our own imaginary.

Construction of a migrant city, working children are from Lima, children of poor rural migrants

OBJECTIVES

Show, through a playful childish look, the particular relationship of survival of recyclers children with the city, fulfilling a function of "cleaning" of it.

To give value to the perception and representation of the socio-cultural reality of the recyclers children, through a personal writing of the territory where the reality and the imaginary are articulated.

Symbolic construction of an urban space in which it is shown that recyclable children are not linked to the physical space itself but to what it means in their daily experience as a means of survival.

Make child labor visible as a form of child abuse.

III. JUSTIFICATION (Relevance and importance of the Project)

Child labor, is part of child abuse and social abuse, which children suffer, the social exclusion suffered by children working from early ages as trash recyclers, exposed to high levels of pollution, without any protection, that threaten their physical health and emotional, because they are exposed to contracting various infectious diseases to the skin, AIDS, etc,

and, on the other hand, they get used to being "in the trash", psychologically, this kills you, is the work of more low category, it marks your self-esteem. Those who recycle garbage are the most marginalized, the socially excluded, who can not do anything else, the person's personality is formed in childhood, if you grow in garbage ... A child who works is not in the best conditions of study, Child labor in Peru is prohibited according to the code of the child and adolescent, only from the age of 12, here we are dealing with even smaller children (look for the Child and Adolescent Code)

The importance of calling attention to society about this situation that is so common and is invisible. Article 1.- Definition.- Every human being is considered a 'child' from the moment of conception until the age of twelve and adolescence from twelve until the age of eighteen.

Article 51°.- Ages required to work in certain activities.- The ages required to authorize the work of adolescents are the following:

1. In the case of work for others or that is provided in relation of dependence:

- a) Fifteen years for non-industrial agricultural work;
- b) Sixteen years for industrial, commercial or mining work;
- c) Seventeen years for industrial fishing activities.

2. In the case of the other work modalities, twelve years.

Article 53.- Registration and data that must be consigned.- The institutions responsible for authorizing the work of adolescents will have a special registry in which the following will be stated:

a) Full name of the adolescent; b) Name of their parents, guardians or responsible persons; c) Date of birth; d) Address and place of residence; e) Work performed; f) Remuneration; g) Work schedule; h) School attended and study schedule; and i) Number of medical certificate. Article 54.- Authorization.- The following are requirements to grant authorization for the work of adolescents: a) That the work does not disturb the regular attendance to the school;

b) That the medical certificate certifies the physical, mental and emotional capacity of the adolescent to perform the tasks. This certificate will be issued free of charge by the medical services of the Health Sector or Social Security; and

c) That no adolescent be admitted to work without proper authorization. Article 55.- Medical examination.- Adolescent workers are periodically subjected to medical examinations.

ions. For independent and domestic workers the exams will be free and will be in charge of the Health Sector.

Article 56.- Working day.- The work of the adolescent between twelve and fourteen years shall not exceed four hours per day or twenty-four hours per week.

The work of the adolescent, between fifteen and seventeen years, shall not exceed six hours a day nor thirty-six hours a week.

Article 57.- Night work.- Night work is understood to be work that takes place between 7:00 a.m. and 7:00 p.m. The Judge may exceptionally authorize night work for adolescents from

fifteen until they reach the age of eighteen, provided that it does not exceed four hours a day. Outside of this authorization, night work of adolescents is prohibited.

Article 58.- Prohibited works.- The work of adolescents in the subsoil is prohibited, in tasks that involve the manipulation of excessive weights or toxic substances and in activities in which their safety or that of other persons is under their responsibility.

Ministries of human development, in coordination with the Labor Sector and consultation with labor and business associations, will periodically establish a list of jobs and activities that are dangerous or harmful to the physical or moral health of adolescents in which they should not be employed.

Article 59°.- Remuneration.- The adolescent worker will not receive a lower remuneration than the other workers of the same category in similar jobs.

Article 61.-Facilities and benefits for adolescents who work.-Employers who hire adolescents are obliged to grant them facilities that make their work compatible with regular attendance at school.

The right to paid holidays will be granted in the months of school holidays.

Article 63.- Domestic work or unpaid family work.- Adolescents who work in domestic service or who perform unpaid family work are entitled to a rest period of twelve continuous hours per day. Employers, employers, parents or relatives are obliged to provide all facilities to ensure their regular attendance at school.

Article 64°.- Social security.- Adolescents who work under any of the modalities covered by this Law have the right to compulsory social security, at least in the health benefits regime.

The proposed project is based on "infanticide" understood as the exploitation and abuse of boys and girls through work, emphasizing the problems faced by the "child worker", daily violence and humiliation to those who are submitted these working children, which are part of a collective culture of physical brutality, shouting, profanity and even sexual harassment, and in extreme cases, rape and murder.

CONCEPTUAL FRAMEWORK

CHILDHOOD

(1) Childhood is the first stage of the physical, emotional-affective and intellectual development of the human being. It is a time to learn, grow, play and alternate with other children, a time in which boys and girls should have the opportunity to develop their potentials and dream of brilliant plans for the future, a time when they should have the right to be only children.

From a psychological point of view, childhood is a period of incorporation and adaptation to the world, of socialization and discovery of norms of coexistence in different spaces, mainly family and school.

The family is the space where personality is cemented, offering children the appropriate environment for a happy beginning of life, as long as it offers love, care, material and spiritual support.

Education should aim at the development of basic competences for the present and future life of boys and girls, self-determination and awareness of their rights and obligations.

The family and the school, main referents and supports for socialization, should be the priority areas for satisfying their needs and demands, the keys that open doors to new opportunities, leaving behind situations of marginalization and subordination. But for many children this possibility does not exist or is very limited.

According to **UNICEF**, in Peru 1.9 million children and adolescents work an average of 45 hours a week. 70% of children are exploited in rural areas, 30% in urban areas.

In the **world**, 246 million are the number of children victims of child abuse, 1.2 million are victims of trafficking, and 5.7 million are victims of servitude and / or slavery; 1.8 million are victims of prostitution and pornography, in addition to being recruited as child soldiers in armed conflicts.

For these children, childhood is a lost dream, they do not know about any game other than survival, and their future is uncertainty.

CAUSES OF CHILD LABOR

The fundamental cause of child labor is, without doubt, **poverty**. However, economic shortages are not a sufficient explanation. There are also many factors of a social, political and cultural nature, often associated and intertwined, that push people to work prematurely.

Many children dedicate themselves to work because **education** is not perceived by them or by their parents as useful to their needs. Public education is not yet a quality education and in fact it is not free and for many families it is practically impossible to cover the expenses of sending all children to school.

The **gender difference** constitutes a factor of premature incorporation of girls into work. In the Andean areas it is not of great benefit to send their daughters to school, given that "they get married and leave", "what are we going to pay for others to take advantage of"; When the school is closed as an alternative, the girls are dedicated full-time to housework or incorporated to the same work outside of it, read "domestic service" for children.

In most cases, what begins as a temporary job for family support, ends up being a way of life, which involves them in a vicious circle that prevents them from developing and marks their existence, since premature labor is a factor that collides fundamentally against the right to education, becoming a factor of reproduction of poverty and social exclusion.

PSYCHOSOCIAL CONSEQUENCES IN THE CHILD

The fact that children work has many effects, the most important of which is probably that working children are not in school. A child who does not go to school has little chance of progressing or leading a better life. Even when the working child manages to keep going to school, he is most likely to get poor results, to fail and to drop out of school. Those unfortunate consequences are directly related to the fact that children work long hours, are exhausted and can not concentrate on homework

The special situation of being child and worker can create many psychosocial risk factors (that is, for the psyche, development and behavior) for working children.

The unfortunate socio-economic and family situations that force children to work are in themselves a source of tension. The majority of working children have no chance of developing according to the normal stages of a child's development. Many of them never have the possibility of establishing meaningful relationships with their relatives, friends and

other people in the community. They do not have the possibility to play, to be spontaneous or to learn. Most working children can not express their feelings or needs. Often, they are subject to strict discipline and are sometimes subject to physical abuse. In many countries, child workers do not enjoy legal protection, which means that they do not receive compensation if they become ill or injured at work, even if the injury permanently incapacitates them.

The **World Health Organization** has examined various studies on the social and psychosocial problems of working children, which yielded the following conclusions:

a .. Children who work on plantations and farms are more likely to have an unstable life, since they are constantly on the move together with their parents, "following the harvests". Children change schools as they migrate with their parents to do seasonal work; they work long hours and perform heavy and exhausting tasks. Work makes working children get tired and bored; they become indifferent and introverted and often feel useless.

b. Children who work in the streets as shoe cleaners, newspaper sellers, messengers, sweepers, vendors in markets and food stalls, as well as helping in illegal activities such as stealing, suffer from various disturbances. They often become averse to normal employment; show signs of excessive fatigue; consume coffee, cigarettes and alcohol; they suffer from venereal diseases; they oppose their parents' control; intervene in criminal activities; Their bodies are deformed and their growth is rickety.

c. Children who work in factories should be responsible, punctual and alert all the time to keep their jobs and avoid injuries that could permanently disable them. They work long hours in uninterrupted working hours that often make them emotionally incapacitated. They can not imagine or fantasize, as most children do, because they often work with machines that can be dangerous and, as a consequence of all this, their mental world becomes extremely poor.

d. Children who work have a strong growth deficit, compared to those who go to school: they grow lower and thinner, and continue to have a smaller body when they are already adults.

e .. Direct experience and statistical surveys indicate that a huge proportion of children who work do so in hazardous conditions, in which they are exposed to chemical and biological risks. For example, according to a large national survey carried out by the **ILO** in the **Philippines**, more than 60 per cent of working children are exposed to these risks, and 40 per cent of them suffer from serious illness or injury, including amputations or loss of some part of the body.

F. Many children work in contact with substances that cause diseases of very long incubation period - for example, asbestos or asbestos - and that increase the risk of chronic occupational diseases, such as asbestosis or lung cancer, in young age. A report from the **World Health Organization (WHO)** concerning a district of **India** attributes epidemic epilepsy to the toxicity of a pesticide, benzin hexachloride, which is used for food preservation.

g. According to a study on occupational diseases in developing countries, pesticides are the most frequent cause of death for children in rural areas, even before the most common childhood diseases, considered as a whole.

h. Children who perform certain tasks are particularly exposed to certain abuses. For example, many studies confirm that those who work in domestic service are victims of verbal and sexual offenses, and of beatings or hunger imposed as punishment.

URBANIZATION - AUTOCONSTRUCTION - HUMAN SETTLEMENTS - 'FAVELA'

"They are the popular neighborhoods [3], self-controlled (because they are occupied following the cycle: invasion / construction of housing by stages / legalization / provision of services and equipment / growth with an external staircase and inventing apartments) and self-built (without engineer or architect, accompanied by a construction teacher, counting on family savings).

They are houses "without skin" of exposed bricks, or the expression of cardboard, wood or plastic, always half-built or half finished; they combine or become contagious in the continuity of the street, houses that become smaller and smaller in appearance. Those childish eyes are surprised.

*It is an accelerated process of urban occupation, where before there was only the **Interruption silence of the sand**, today more than five hundred thousand houses are built, covering the ends of the city like a layer of brick and cement.*

It is possible to affirm that two out of every three houses of the capital are based on the singular denomination of Young Peoples "1.

False dichotomies intended to sustain these differences, counterposing qualifiers such as: **spontaneous / planned, informal / formal, unofficial / official.**

They are **fragments of reality**. It is a document. *"Learning to live in chaos means not learning to control or predict it. On the contrary (...) we are part of chaos, we can not consider them as separate elements". (Theory of chaos)*

FOLLOWED ACTION - CONCEPTS

SELF-BUILD

SELF-ORGANIZATION

RE-OWNERSHIP

RE-USE

RECONSTRUCTION

RECYCLING

Way to confront ourselves to the world. Cultural way of being. Re-construction cultural.

OTHERNESS

ENTROPY: Natural tendency to the loss of order

CHAOS: Theory of (..)

DETTERRITORIALIZATION

MIGRATION

HYBRIDIZATION: Mixture, one and another, another.

INTERRUPTION

CONTRADICTION

INVASION: Take to own and build.

SUPERPOSITION: Principle...One on another.

STRATIFICATION

VISIBILITY