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Systemic network around education and community gardens

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SYSTEMIC NETWORK AROUND EDUCATION AND COMMUNITY GARDENS

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Torino, october/ 2018

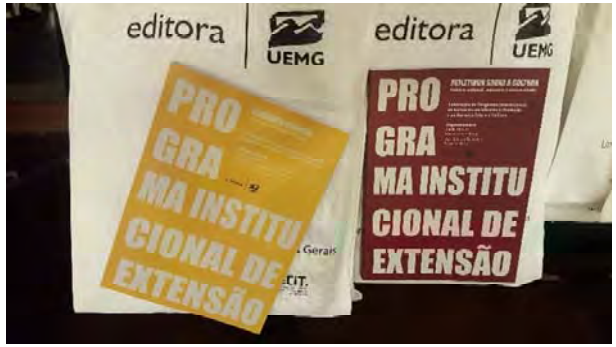
Our Academic Team

- Ediméia Maria Ribeiro de Mello
  - Centro Universitário UNA
- Samantha de Oliveira Nery
  - Universidade Federal de Minas Gerais (UFMG)
- Marcos Paulo de Jesus Horácio
  - Universidade do Estado de Minas Gerais (UEMG)
- Eduardo Romeiro Filho
  - Universidade Federal de Minas Gerais (UFMG)

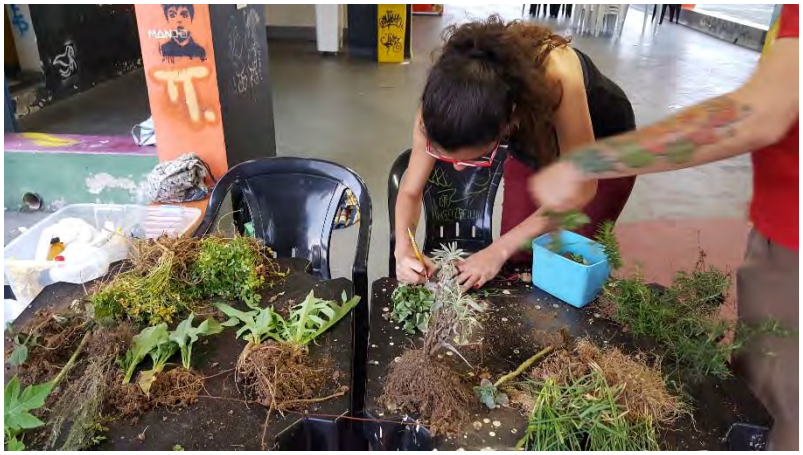
SYSTEMIC NETWORK,
EDUCATION, COMMUNITY GARDENS

In 4 years

- Some things we have done working with Systemic Design:
  - Connecting academic activities and the movement of Community Gardens



CULTURAL MOVEMENTS AND EXPRESSIONS



AGRICULTURE AND NUTRITION

CONSTRUCTION INDUSTRY

SYSTEMIC NETWORK,
EDUCATION, COMMUNITY GARDENS

In 4 years

- Teaching real sustainability
  - instead of just Environmental Education
    - as required by the brazilian Law n. 9.795, from April 27th, 1999, that establishes the National Environmental Education Policy,
  - to future Visual Arts teachers of basic education.

LG

SYSTEMIC NETWORK,
EDUCATION, COMMUNITY GARDENS

In 4 years

- Offering academic extension activities
  - with short courses on vegetable and flower urban gardens in small spaces, which create a dialog
    - on different aspects of Design,
    - on products lifecycle,
    - on new Economies (such as Distributed and Sharing)
    - promoting exchanges between the academic community and the society.

Cultivating

Ergonomics

Signaling

Upcycling

Partnerships

- Making exchanges between the academic community and the society
- Practicing diversity

Sharing Economy - Coworking

SYSTEMIC NETWORK,
EDUCATION, COMMUNITY GARDENS

In 4 years

- Fostering Systemic Networks of Integral Endeavours for the:
  - awakening of designers of the importance that every productive activity is based on economic, social and environmental sustainability
    - and their roles as entrepreneurs, consultants or specialized employees
  - teaching Economic Factors
  - doing social work with slum communities
  - proposing research to make connections within the university itself

SYSTEMIC NETWORK, EDUCATION, COMMUNITY GARDENS

In 4 years

- connecting with other institutions for these actions:
  - federal and private universities;
  - a local public institution (URBEL);
  - local producers (for seedlings) – Fábrica de Hortas e BeGreen
  - independent agronomist and gastronomic professionals
  - the communities (including a kindergarten) and
  - a renowned construction company (MRV)

- using the knowledge of
  - many professionals (e.g. architects, engineers, sociologists, agronomists, gastronomes, designers, economists)
  - and also empirical knowledge, also from students.

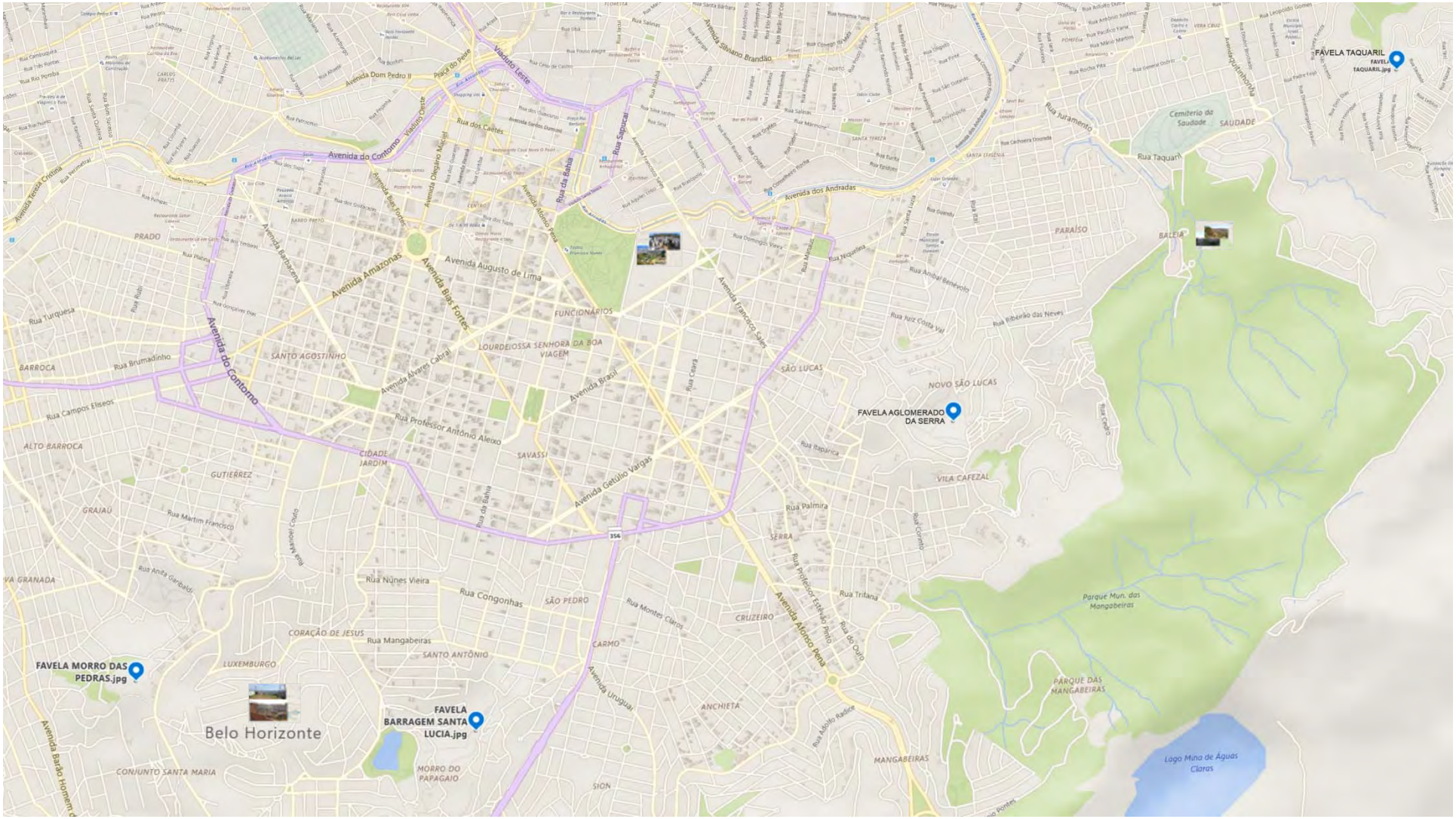
BeGreen
BOULEVARD
FAÇA VOCÊ MESMO
PREPARE-SE PARA A VISITA
ESTUFA

Hortaliças
Frutos / Legumes
Panc`s
Plantas Alimenticias nao convencionais
Temperos
Ervas Aromaticas
Frutas
Medicinais
Fábrica de Hortas
Sol
Luz direta | Alta Luminosidade
pelo menos 2h
pelo menos 4h
pelo menos 6h
pelo menos 8h
pelo menos 10h
Água
Boa Drenagem | Sempre Observar
3x por semana
1x por dia
2x por dia
solo encharcado

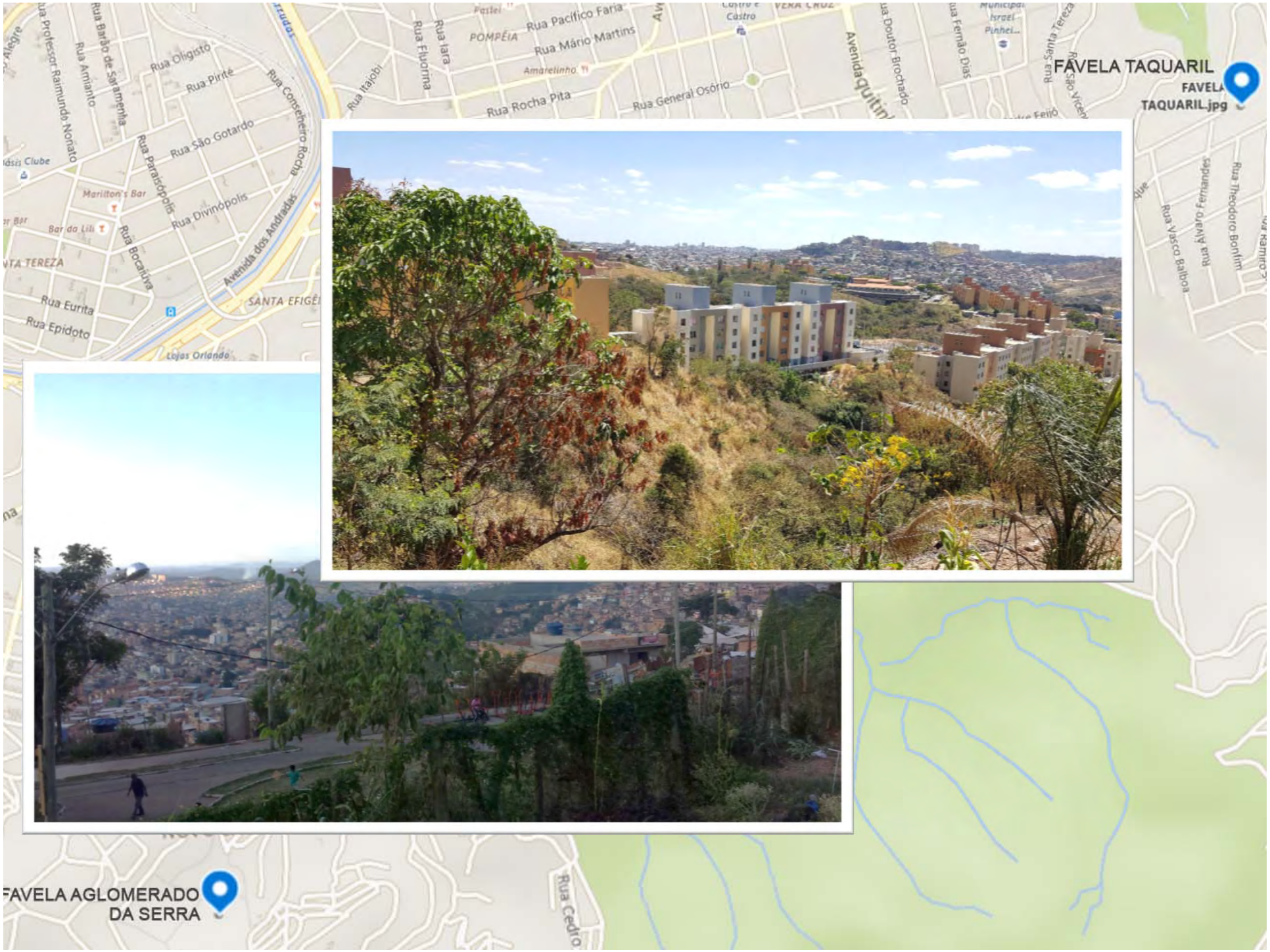
SYSTEMIC NETWORK, EDUCATION, COMMUNITY GARDENS

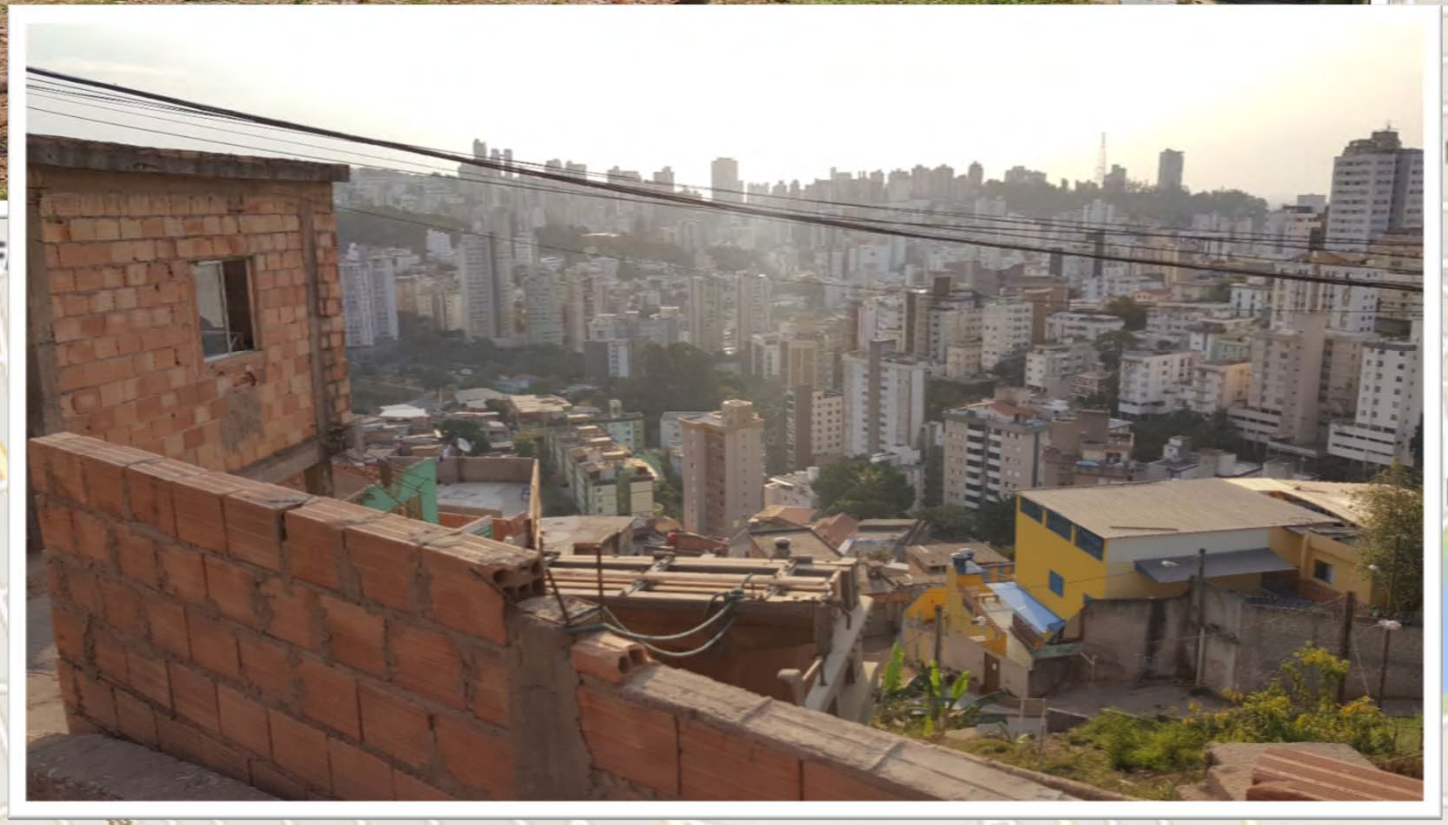
Community Work

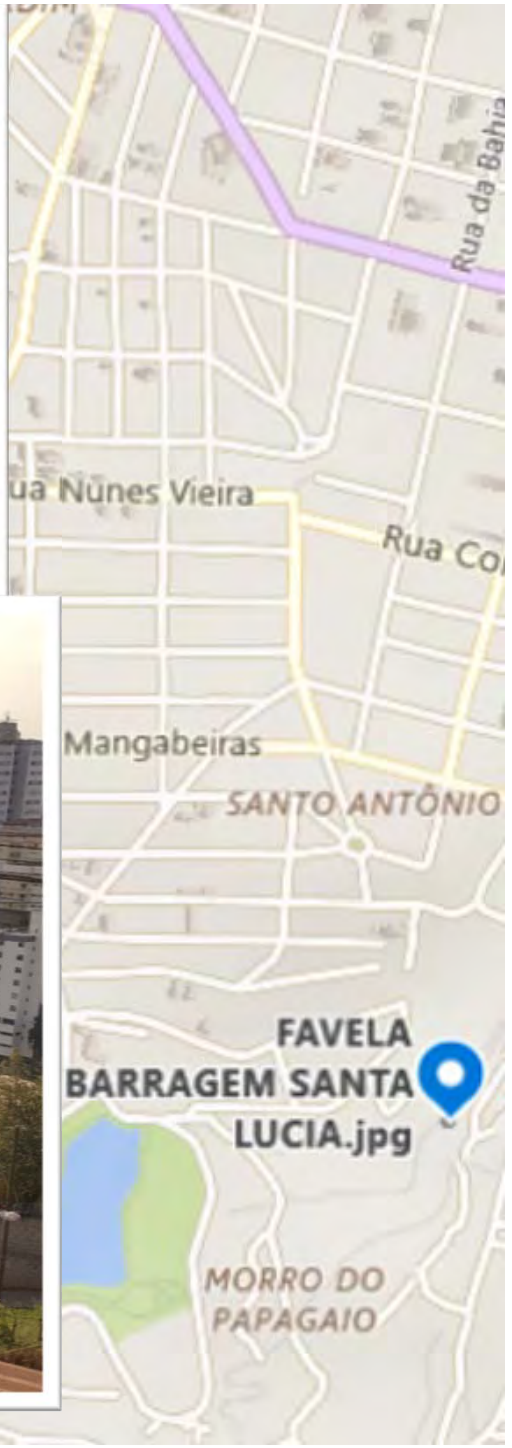
- Also the communities of four slums in different areas of Belo Horizonte (the third most populated and developed city of Brazil) connect:
  - They have in common a vacant area within the community
    - that can be a threat if left unused or
    - an opportunity to make some action for the collectivity, (food, culture) >> a community bond


FAVELA TAQUARIL
FAVELA TAQUARIL.jpg
FAVELA AGLOMERADO DA SERRA
FAVELA MORRO DAS PEDRAS.jpg
FAVELA BARRAGEM SANTA LUCIA.jpg
Belo Horizonte
Avenida do Contorno
Avenida Amazonas
Avenida Augusto de Lima
Avenida Bias Fortes
Avenida Afonso Pena
Avenida Getúlio Vargas
Avenida Brasil
Avenida Álvares Cabral
Avenida Barbacena
Avenida Olegário Maciel
Avenida Dom Pedro II
Avenida Silviano Brandão
Avenida dos Andradas
Rua Juramento
Rua Taquari
Rua da Bahia
Rua Sapucaí
Rua dos Caetés
Rua Professor Antônio Aleixo
Rua Congonhas
Rua Nunes Vieira
Rua Mangabeiras
Rua Palmira
Rua Tristana
Rua Montes Claros
Rua Professor Estêvão Pinto
Avenida Uruguai
Viaduto Leste
Viaduto Oeste
Praça do Peixe
Cemitério da Saudade
SAUDADE
PARAÍSO
BALEIA
NOVO SÃO LUCAS
SÃO LUCAS
VILA CAFEZAL
SERRA
CRUZEIRO
ANCHIETA
MANGABEIRAS
SÃO PEDRO
CARMO
SANTO ANTÔNIO
CORAÇÃO DE JESUS
LUXEMBURGO
CONJUNTO SANTA MARIA
MORRO DO PAPAGAIO
SION
FUNCIONÁRIOS
LOURDES
SANTO AGOSTINHO
SAVASSI
CIDADE JARDIM
GUTIERREZ
ALTO BARROCA
BARROCA
PRADO
GRAJAÚ
Parque Mun. das Mangabeiras
PARQUE DAS MANGABEIRAS
Lago Mina de Águas Claras
356

Acobamentos Bel Lor
Rua Abaeté
Avenida Dom P
Amaral Gourmet
Rua Jaguari
Rua Peçanha
Rua Patrocínio
Socar
Avenida do Contorno
Rua Arruda's
Rua dos Tupis
Rua Paracatú
Gis Club
Pousada Acacia Amarela
Rua dos Goitacazes
Lp Bar
BARRO PRETO
Rua Ceará
SÃO LUCAS
Rua Itaparica
Rua Palmira
SERRA


FAVELA TAQUARIL
FAVELA TAQUARIL.jpg
FAVELA AGLOMERADO DA SERRA
Rua Pacífico Faria
Rua Mário Martins
Rua Rocha Pita
Rua General Osório
Rua Oligisto
Rua Pirité
Rua São Gotardo
Rua Paraisópolis
Rua Divinópolis
Rua Bocaiúva
Avenida dos Andradas
Rua Eurita
Rua Epidoto
Rua Amianto
Rua Barão de Saramenha
Rua Conselheiro Rocha
Rua Fluorina
Rua Iara
Rua Itajobi
Rua Doutor Brochado
Rua Fernão Dias
Rua Santa Tereza
Rua Vasco Balboa
Rua Álvaro Fernandes
Rua Theodoro Bonfim
Rua Cedro
Marilton's Bar
Bar da Lili
Lojas Orlando
Amarelinho
POMPÉIA
SANTA EFIGÊ




Rua da Bahia
ua Nunes Vieira
Rua Co
Mangabeiras
SANTO ANTÔNIO
FAVELA
BARRAGEM SANTA
LUCIA.jpg
MORRO DO
PAPAGAIO

Community Work

- Communities:
  - "Morro das Pedras":
    - workshop to produce fertilizer from organic waste to enrich the soil
    - land beneath a high voltage powerline was transformed in a community vegetable garden (6 persons doing volunteer work – 2 hours/working days; 5 hours/Saturdays).
      - » organic waste, seeds and seedlings are donated by 11 families >> exchange for a weekly bag of vegetables distributed to the children of the local school

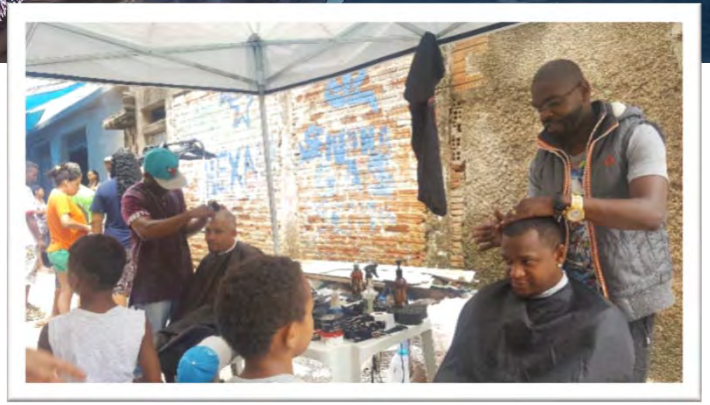
08/04/2017

21/04/2017

30/09/2017

14/10/2017

19/11/2017



16/06/2018

SYSTEMIC NETWORK, EDUCATION, COMMUNITY GARDENS

Community Work

» 1 year later:

- community has won support of the Brazil Foundation;
- one of the community leaders has won a photography contest with this image:

TecMundo Contest
Smartphone Photography

Autor: **Horacius de Jesus**

Fonte: https://www.tecmundo.com.br/produto/129575-conheca-grande-vencedor-premio-tecmundo-fotografia-smartphone.htm

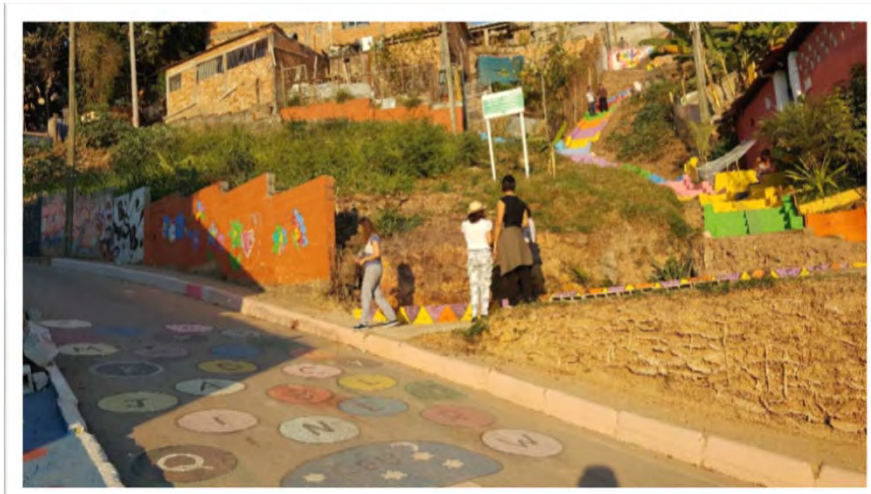
Community Work

- “Santa Lucia”
  - geological risk area been made vacant by local authorities
  - professors from a local private university (UNA) have been asked by locals to give support to make a community garden.
  - from the partnership built among UNA, ED-UEMG and UFMG in reason of prior identification of common interests in research and extension projects
    - » the group is trying to engage the community in this initiative
      - making surveys to understand the community and their needs,
      - workshops and collective actions, called “mutirões”.

10/08/2017

31/08/2017

14/08/2017



23/09/2017 – Spring Mutirão

28/10/2017

08/02/2018

05/05/2018

16/06/2018

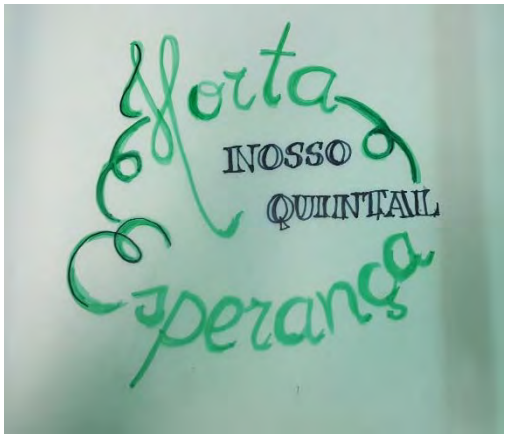
22/08/2018

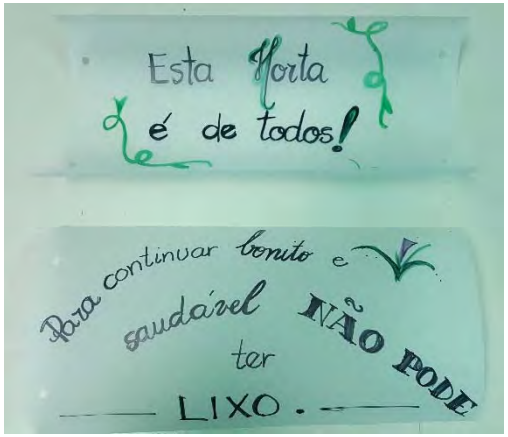
19/06/2018

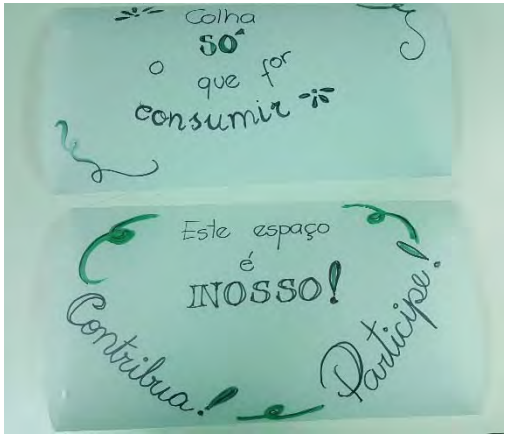
22/09/2018

HORTA COMUNITÁRIA ESPERANÇA
PROIBIDO QUALQUER TIPO DE CONSTRUÇÃO

DESCRIÇÃO
DA
ATIVIDADE
PARCEIROS
UNA
UEMG
UFMG
URBEL
CHECHE ESPERANÇA
VOCÊ!
PEGUE SUA FICHA
DE INSCRIÇÃO AQUI
COLOQUE SUA FICHA
PREENCHIDA AQUI


Horta
NOSSO
QUINTAL
Esperança


Esta Horta
é de todos!
Para continuar bonito e
saudável NÃO PODE
ter
LIXO


Colha
SÓ
o que for
consumir
Este espaço
é
NOSSO!
Contribua!
Participe!

SYSTEMIC NETWORK,
EDUCATION, COMMUNITY GARDENS

Community Work

- "Santa Lucia"
  - It is being an interdisciplinary effort:
    - » of designers,
    - » architects,
    - » economists,
    - » sociologists,
    - » engineers,
    - » gastronomists,
    - » nutritionists,
    - » with the support of URBEL
    - » TO ENGAGE THE COMMUNITY

SYSTEMIC NETWORK, EDUCATION, COMMUNITY GARDENS

Community Work

- Taquaril
  - URBEL has invited the academy (represented by UNA, UEMG and UFMG) to support some families to develop their urban gardens, in a **preservation area**.
  - Dense bushes nearby the residences represented a danger to the families for hiding illicit activities as well as synanthropic animals that are a threat to human health.
  - Since a retired resident had expertise with agriculture, he should be the reference and inspiration for the neighbours.
  - He is succeeding in having very productive space, but the neighbours are not quite engaged yet.
  - We have promoted a composting workshop with the families and will be making activities to involve and foster collaboration within the community.

02/09/2017

SYSTEMIC NETWORK, EDUCATION, COMMUNITY GARDENS

Community Work

- "Aglomerado da Serra"
  - A rather **independent group** having already a practice of involving the community in the selective collect and organic compost making with and without worms.
  - Some leaders of the community give workshops on this practice and sell boxes for vermiculture.
  - We have participated as students in their workshop and afterwards have invited them to take part in a short extension course on vegetable and flower urban gardens that was promoted in the ED-UEMG.
  - Agroecological practices have been the main focus of the group, as a way of life, along with healthy eating and income generation.

Mutirao - 07/05/2016

Spiralixo – Roots Ativa

http://www.spiralixo.com.br/rootsativa/

SYSTEMIC NETWORK,
EDUCATION, COMMUNITY GARDENS

Community Work

- All these initiatives have as main objective:
  - the **strengthening of social cohesion** within the communities and of their autonomy to be reflected in self-management,
  - broadening of **collective identity** and health promotion by food sovereignty,
  - strengthening **conscious agents**, protagonists of relationships and of their living space.

Foundations

- Our theoretical foundations:
  - Systemic Networks of Integral Endeavours:
    - Connecting people, their activities and businesses:
      - » aware that the base of their endeavours must consider the balance among economic, social and environmental aspects.
      - » that culture is the essential energy that move individuals to choose and engage in an activity
      - » bearing in mind the Systemic Design Principles
        - Output/ input (optimization of resources)
        - Relationships (stimulating connections)
        - Valorization of local resources and culture
        - Human centered (quality of life)
        - Autopoiesis (virtuous examples and minimum hierachy)

SYSTEMIC NETWORK,
EDUCATION, COMMUNITY GARDENS

Foundations

- Our theoretical foundations:
  - Agroecology for Food Sovereignty
    - Local definition of politics and strategies for

      sustainable production, distribution and consuming of adequate, safe and healthy food,

      treating the integration of plants, animals, humans and the environment

      within agricultural systems,

      adequate to territorial, cultural and socio-economic conditions.

SYSTEMIC NETWORK,
EDUCATION, COMMUNITY GARDENS

Foundations

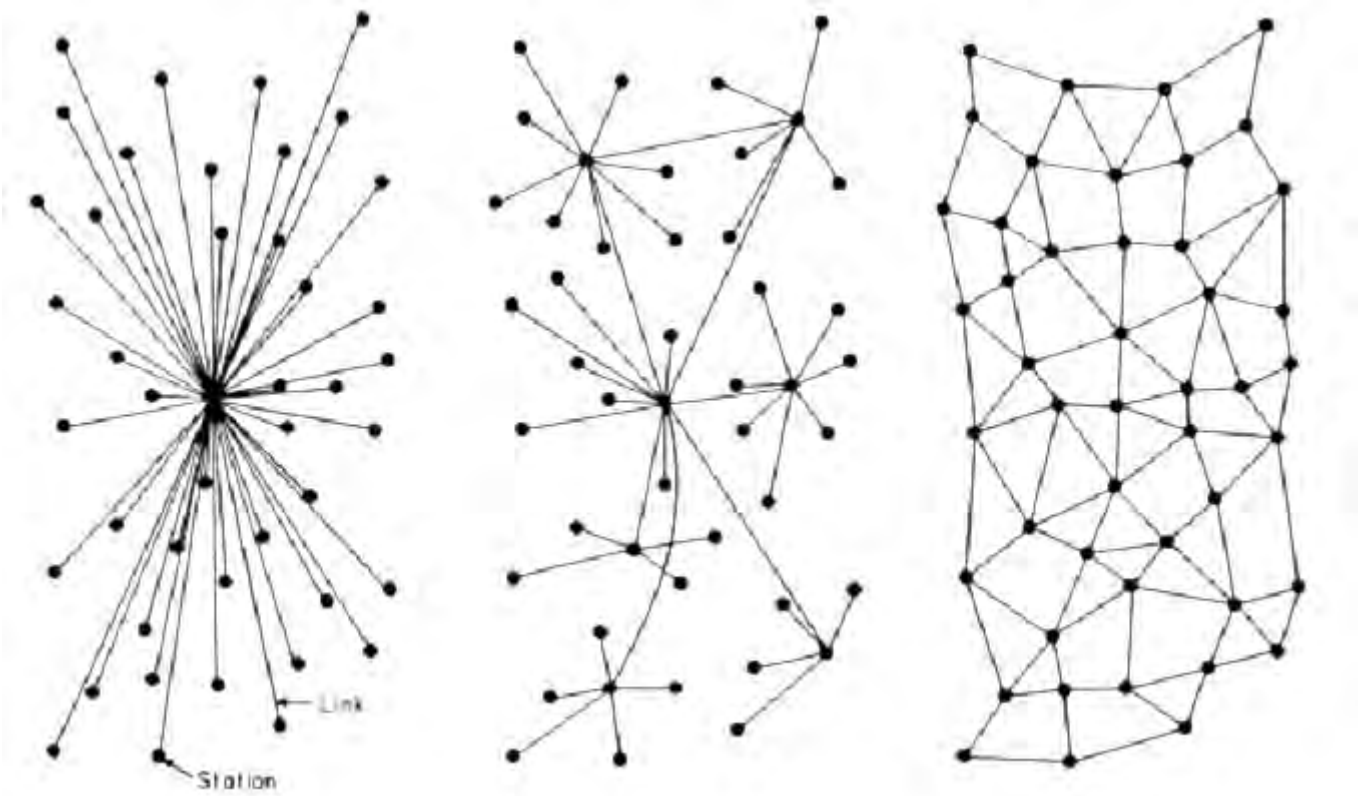
Recognizing
Wild Plants as Food

SYSTEMIC NETWORK,
EDUCATION, COMMUNITY GARDENS

Foundations

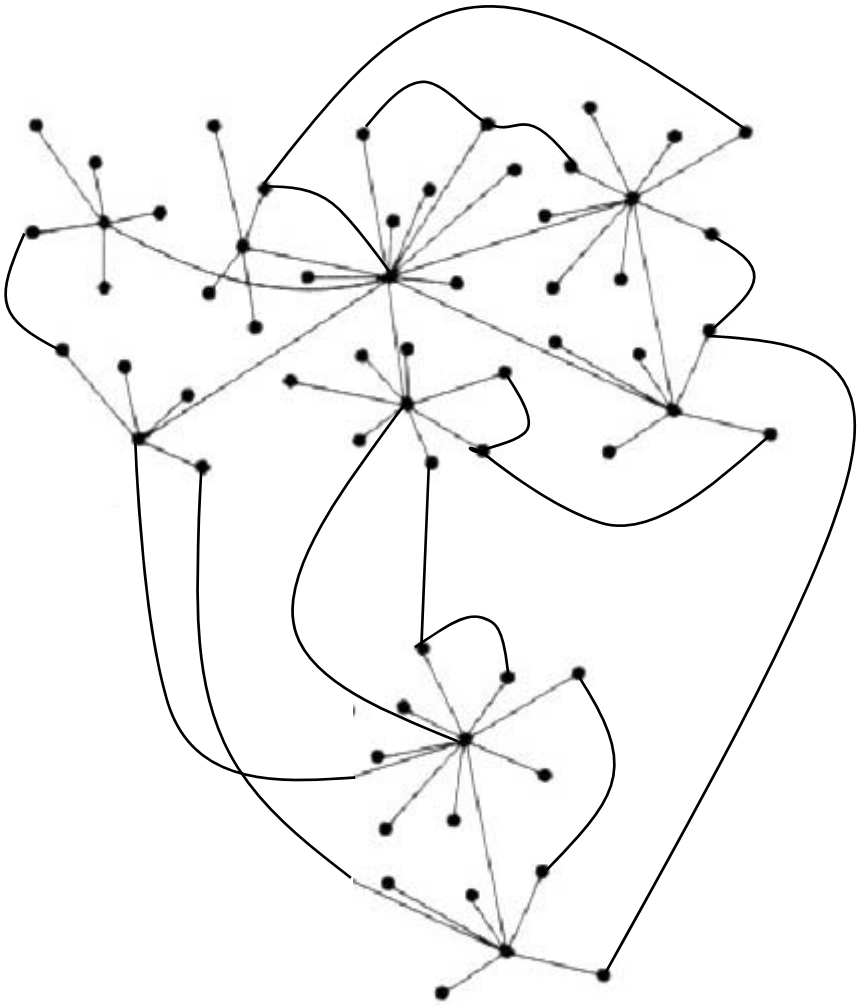
- Our theoretical foundations:
  - Social and Solidarity Economy
    - Economic activities based on solidarity for the integrated development of the community and the individual
    - It privileges the voluntary associations aiming at addressing specific local problems, with the objective of contributing to the improvement of collective quality of life and the environment, which neglect the rigors of cost/ benefit analysis, typical of private management (FRANÇA, 2001)
  - Social inclusion, valorisation of diversity, exchange of academic and empirical knowledge are also cornerstones of our work.

Traditional Network Typologies



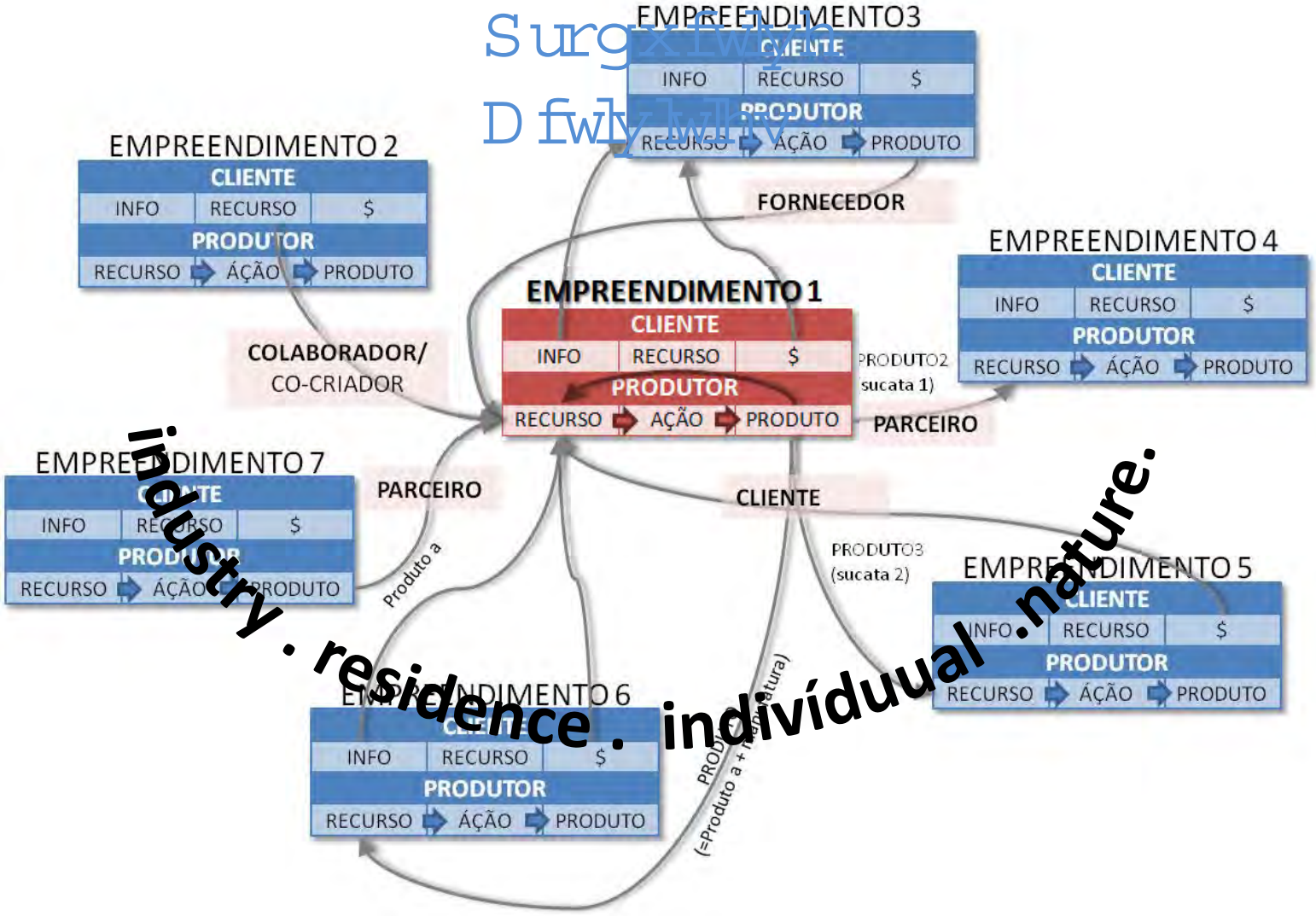
a) Centralized; b) Descentralized; c) Distributed

SYSTEMIC NETWORK, EDUCATION, COMMUNITY GARDENS

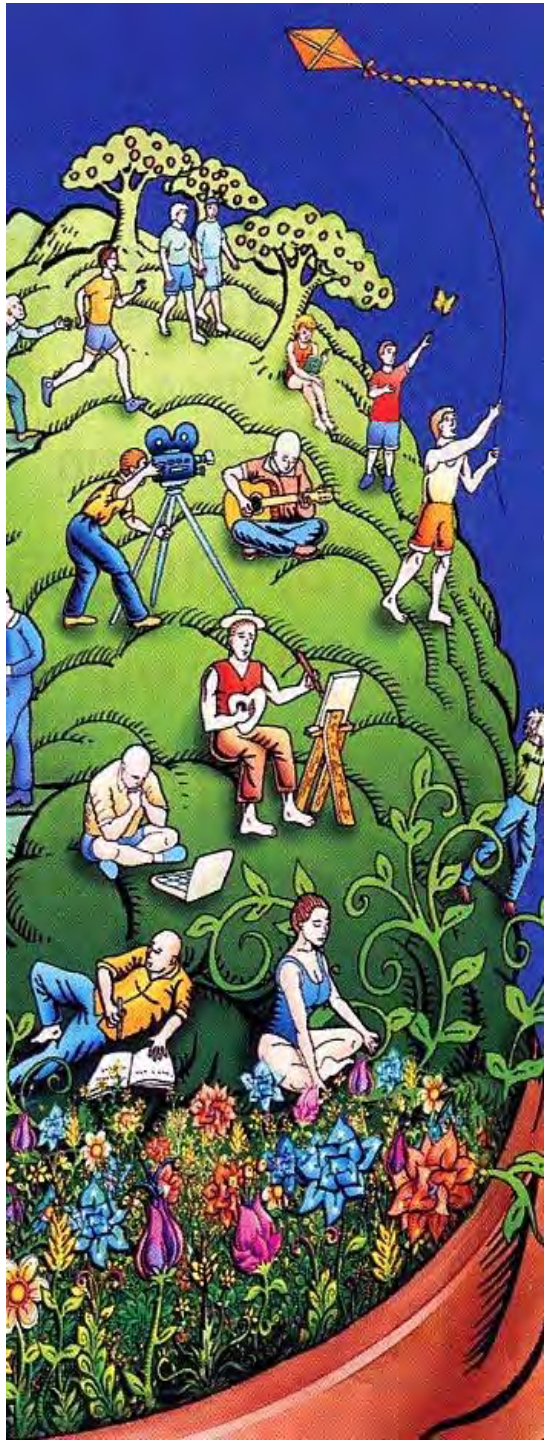


Systemic Network

Systemic Network



Obrigada!

Rosângela Míriam

romiriam@arquicad.com.br