



# Urban uses of urine as a fertilizer: a field study in France

Gardening as an alternative urine management practice  
at home and in community gardens

Léa Weingart<sup>1</sup>, Marine Legrand<sup>1</sup>, Bernard de Gouvello<sup>1,2</sup>, Sabine Barles<sup>3</sup>

1. Laboratoire Eau, Environnements, Systèmes Urbains (LEESU), Ecole des Ponts ParisTech
2. Centre Scientifique et Technique du Bâtiment (CSTB)
3. Géographie-Cité, Université Paris - 1

[Marine.legrand@enpc.fr](mailto:Marine.legrand@enpc.fr)  
[www.leesu.fr/ocapi](http://www.leesu.fr/ocapi)



## **I. CONTEXT**

The emergence of excreta source separation in urban contexts in France

## **II. STUDY FIELD AND METHODOLOGY**

Peecycling at home in Paris region

## **III. RESULTS**

1. Describing the practices
2. A critical approach to conventional sanitation systems ?

## I. CONTEXT

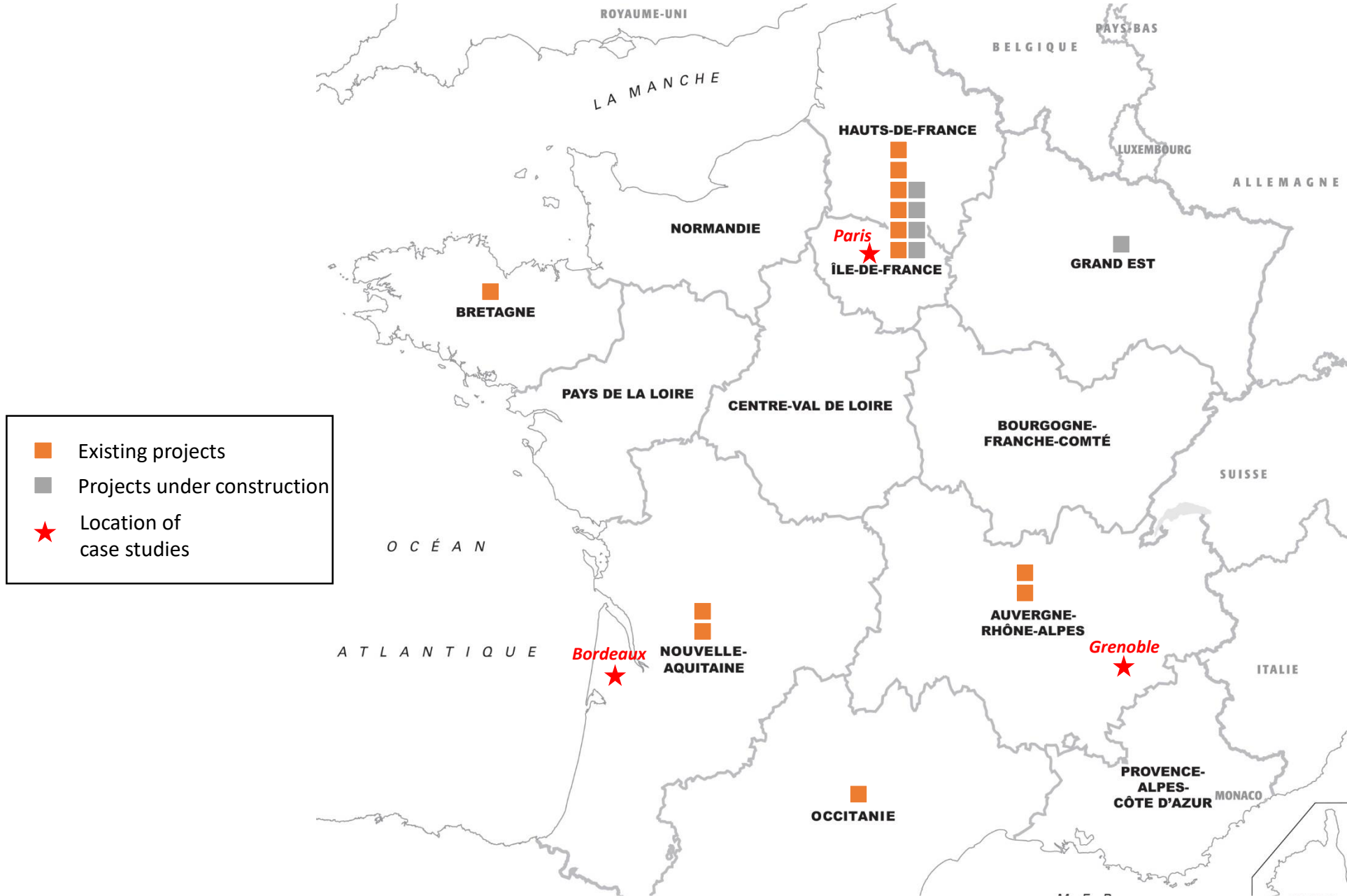
### The emergence of excreta source separation in urban contexts in France

**Dry toilets are legal in France since 2009** : the practice is growing in rural contexts (> 100 000 dwellings ?)

**Several research projects** have been launched this past ten years

- **17 collective projects identified in urban contexts** (not exhaustive) :
  - Participatory housing
  - Eco-neighbourhoods
  - Schools, restaurants, and other buildings welcoming the public
  - Office buildings...

**A emerging practice that has not yet reached the « take-off » phase**



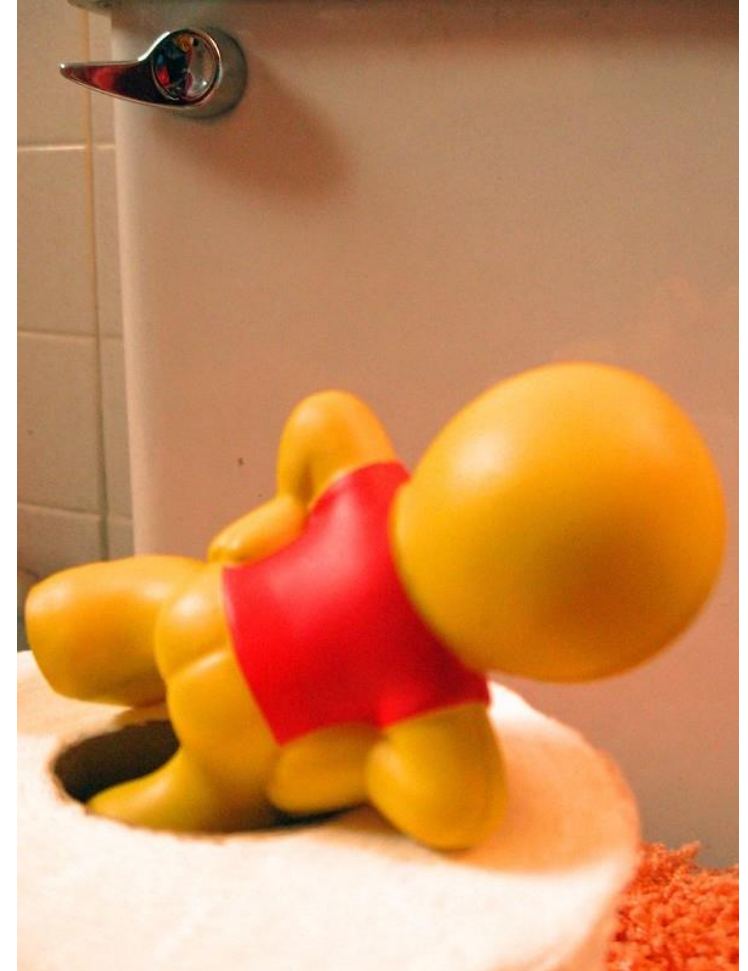
**Location of urban source separation collective projects in France (overseas regions not included)**

*Author : OCAPI – École des Ponts ParisTech, 2022.*

Are there urban peecyclers in Paris region ?

Alternative urine management practices are *a priori* still **informal and marginal** in urban contexts

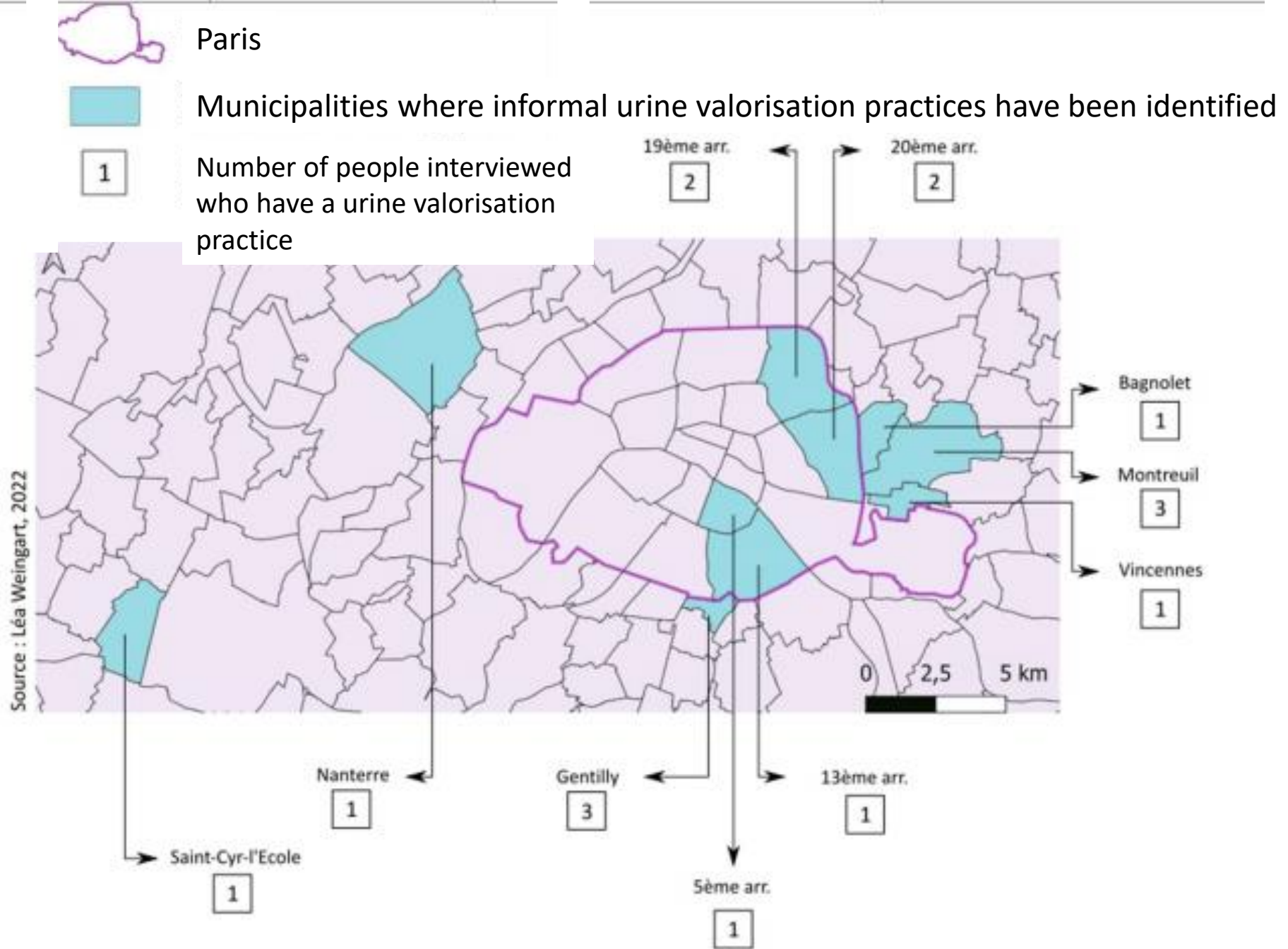
Do they have the potential to question conventional sanitation systems, by producing new experiences, practices and imaginaries ?



## II. STUDY FIELD AND METHODOLOGY : Peecycling at home in Paris region

- **A field study in Ile-de-France** (Léa Weingart, Master 1 Urban Planning)
- **20 people interviewed**, identified through :
  - inter-knowledge (program OCAPI network)
  - social networks (community gardens)
- Recorded interviews, coding, qualitative analysis





Location of interviewees in Ile de France region (Paris and its surroundings)

### III. RESULTS

#### 1. Describing the practices

- **A recent and marginal practice** in the domestic context
- Urine valorization in urban contexts : **one practice, several approaches**
  - Application sites depending on type of housing
  - Motivations and techniques : is urine a fertiliser ?



# At home



Portative urinal stored in the toilets in an apartment



Bottle of stored urine and watering can used to fertilize a balcony

# Community gardens



Watering can only used for urine application in a community garden (2022)



Experimentation in a community garden (jardin Pontanique) 2019

# At work

Toilets with indications on peecycling



Watering can on which one can sit



Green roof



Urine fertilization calendar (not used)



Source : clichés L. Weingart, avril 2022

*An office building of Paris Municipality sanitation services (STEA) where a collective urine fertilization experience has been set up*

# Peecycling promoters



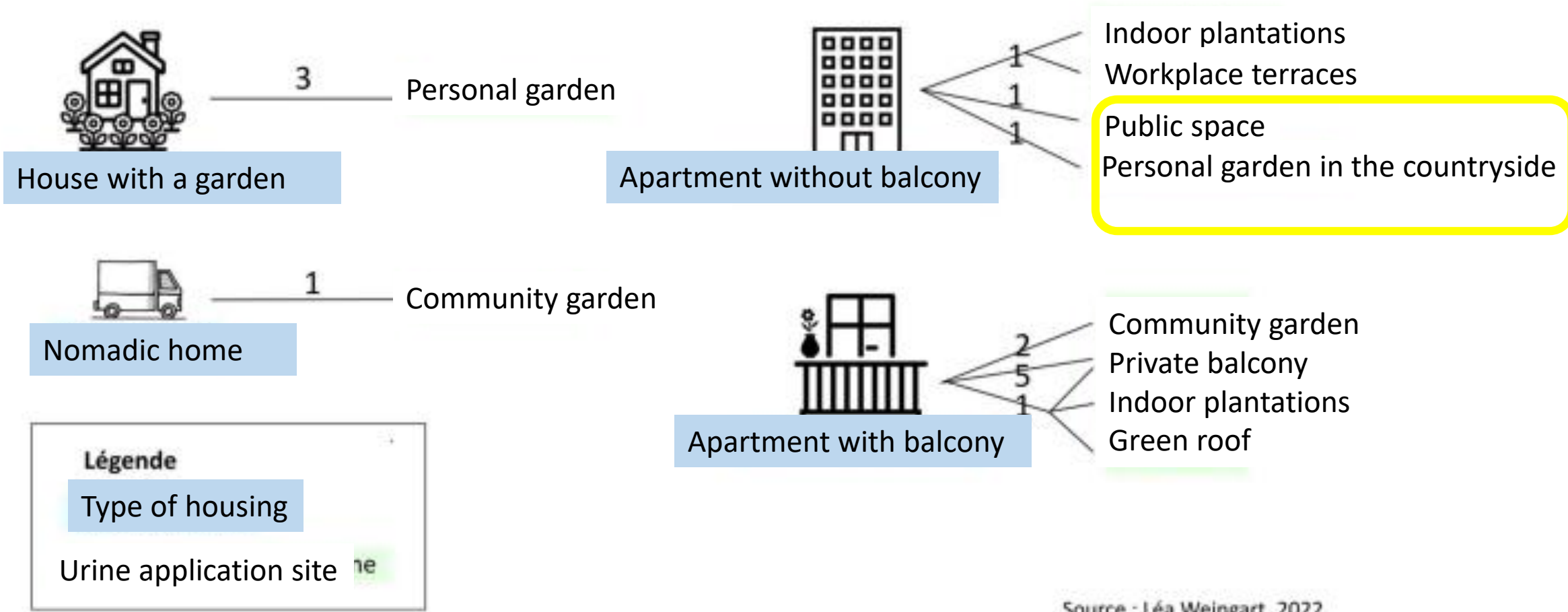
Renaud de Looze (Palmeraie des Alpes)



Robert Cossette (Oriaz / Solar dripper)



# Application sites depending on type of housing



Source : Léa Weingart, 2022

# Motivations and techniques : is urine a fertiliser ?

Source : Léa Weingart, 2022

Interest for  
urine as a  
fertilizer

Interest for water  
ressources  
protection

1 : Experimenting with the  
agronomic effects of urine

Methodical use of urine according to  
one's own techniques, including  
calculation of its agronomic effects

2 : Fertilizing and  
preserving water

Regularly urinating into a  
watering can or bottle,  
adding water more or less  
precisely according to a  
known dilution factor,  
watering plants

3 : Preserving  
water by fertilizing  
when possible

4 : Freeing oneself from the toilet

For a substantial portion of the excreted urine, urinate in a can or bottle, store the urine at home, then as appropriate:  
(1) transport it for spreading in areas not normally cultivated  
(2) dispose of it in other ways

At a random frequency, urinate in a bucket or a watering can, dilute without measuring, water the plants directly

When the opportunity arises, urinate directly at the foot of the plants rather than in the toilets  
Methodical use of urine according to one's own techniques, including calculation of its agronomic effects

Great regularity

Occasional practice



### III. RESULTS

#### 2. A critical approach to conventional sanitation systems ?

##### **Peecycling is not a classical « eco-gesture »**

(Monsaingeon, 2014)

Contrary to selective waste sorting, ecofriendly goods, ..., peecycling at home is an informal practice, which is not intergrated to the market or institutions (no public awareness-raising campaigns...).

*"Whenever I decanted my urine cans, I hid, so I stacked them in supermarket bins so people wouldn't see what they were and think I was just dumping something. I was especially afraid that people in the neighborhood would know about it.*

(Dorian, 20<sup>ème</sup> arr. de Paris)



### III. RESULTS

#### 2. A critical approach to conventional sanitation systems ?

#### **Peecycling is still often a hidden practice**

##### **Limited showing, talking, sharing**

*« It's a taboo subject obviously, talking about pee poo, everyone will hide in general. We are perfect humans with only beautiful selfies on Instagram. But the reality is different. » (Robert Cossette, Annecy)*

##### **Practitioners engage in the process of learning how to manage a « dirty » material (materialy, symbolicaly)**

*« It's something that engages the body. [...] To be ok with one's body in order to engage it in an action that gives a little grip on one's intimacy perhaps. Finally, something intimate. » (Laurent, Rueil-Malmaison)*



### III. RESULTS

#### 2. A critical approach to conventional sanitation systems ?

##### **A critical approach to fertilization and sanitation conventional methods**

- Peecycling at home : a first step for « imaginaries ecologisation » ?
- Peecycling and community gardens : a place for collective experimentation ? Or not...?

##### **...with a limit :**

- Practical impossibility to « exit » the conventional sanitation system in urban contexts
- A shared desire to leave the city, own a garden, install alternative sanitation systems (compost toilets, etc.)



# Thank you for your attention

To go further : visit [OCAPI program's library](#) and its social sciences shelve

Weingart, L. 2022. Les usages urbains de l'urine comme fertilisant. Etude des pratiques de gestion alternative de l'urine par le jardinage dans les sphères domestique et associative d'Ile-de-France. Mémoire de Master 1 *Urbanisme et aménagement*, Université Paris 1.

Léa Weingart<sup>1</sup>, Marine Legrand<sup>1</sup>, Bernard de Gouvello<sup>1,2</sup>, Sabine Barles<sup>3</sup>

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