

# **A 3D Approach of Greece's Property Law on Urban Environmental Pollution**

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# Introduction

Urban environment is complex & multidimensional

**Urban environmental pollution:** one of the biggest problems & challenges that modern societies have to deal with

Land Ownership & Property Rights based on ***numerus clausus principle*** subjected to ***Rules & Restrictions***

Mid 1840's, UK, first ***rules & restrictions*** imposed to private properties exploitation for public health protection

USA 1850's Century Nuisance Law: fines for property maluse causing damage to community, neighborhood & neighboring properties

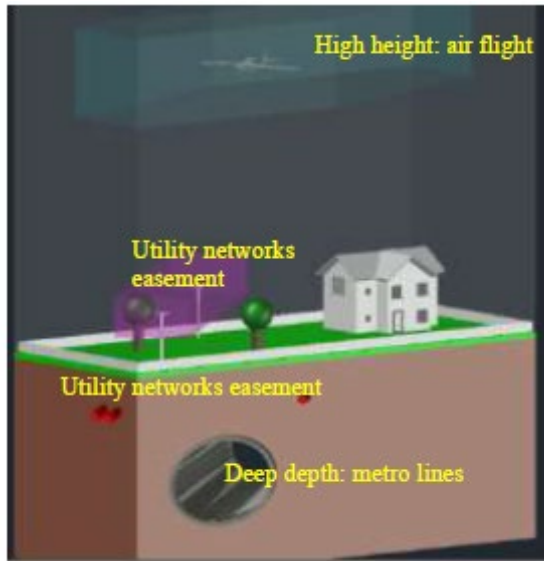
Early 1930's property rights are ***bundle of rights***

After 1950's urban air pollution affected individuals health & property value devaluation – permanent compensation

After 2000's to limit urban air pollution: ***polluter – pays principles***

After 2010's to limit urban pollution & confront the climate crisis, buildings energy consumption must be reduced, sustainable & greener buildings using cleaner energy

# Greek Property Law



Source: Perperidou et al. 2021

Enacted in 1946, Book 3 Civil Code

PL Art. 1000: *“the owner of the thing can, as long as there are no conflicts to the law or the rights of third parties, to use it as the owner pleases and to exclude any third party action on it”*

**Properties & Property Rights are legally described in 3D**

Greek PL derived by Byzantine Roman Law “Hexabiblos of Harmenopoulos”

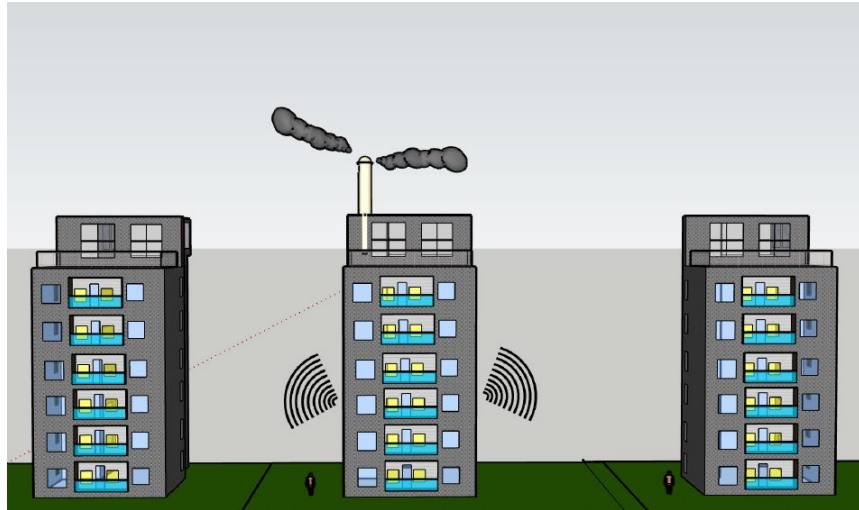
Harmenopoulos Hexabiblos includes a series of rules/ restrictions/ regulation on nuisance prevention from smoke of neighboring properties ventilation systems in respect to their use e.g. private baths, bakeries, workshops etc.,

3D descriptions based also in weather conditions and landscape

# Greek Property Law & Environmental Protection

- Protection of public owned immovable things (exempt from transactions)
- Surface running waters protection
- Rain water in urban areas direction so as to protect neighboring properties
- High standards of living conditions: view easement, non in-height development easement etc.
- Nuisance control/ emissions limitation or prevention
- Emissions: air emissions, vibrations, lighting etc.

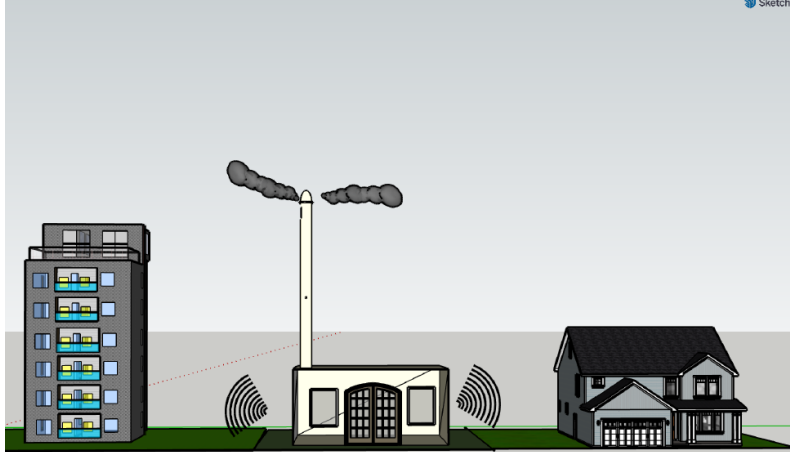
# Greek Property Law & 3D air emissions 1/2



Source: Perperidou & Xydopoulos 2021

- Air emissions from house heating or restaurants ventilation systems **must be tolerated** by neighboring properties if is result of usual use
- **Usual use** is correlated to **official land uses** and buildings installations operation regulations
- Different usual use in respect to official land uses: residential areas – mixed residential areas - industrial areas

## Greek Property Law & 3D air emissions 2/



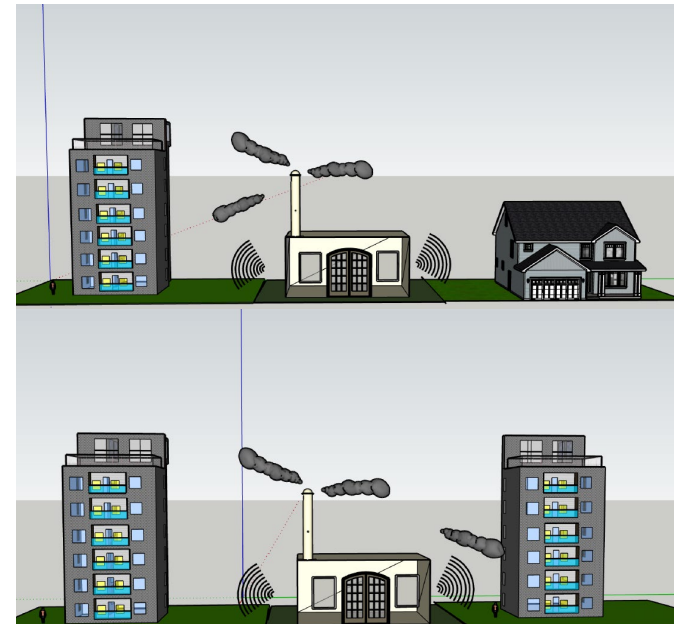
Source: Perperidou & Xydopoulos 2021

Small workshop or restaurant is within the context of usual use  
in mixed residential or residential areas,  
**as long as its ventilation system is properly constructed**

- Factory is not tolerant in a residential area
- Small workshop that does not follow ventilation system construction rules

&

**is not tolerant in a residential area as causes direct effects**



Source: Perperidou & Xydopoulos 2021

# Greek Building Code & Property Law

## 3D air emissions

Legal Framework on emission by buildings ventilation system (heating or restaurants cuisine) is regulated:

- 2012 Building Code
- General Building Regulation
- 2017 Ministerial Decision on *sanitary regulations and conditions for the operation of food sector*

### **Buildings Heating Ventilation System**

- above the building,
- at least 1 meter above their exit point,
- 0.7 meter above any other building infrastructure (e.g. staircase or/ elevator terminal end) that are within an horizontal distance of 3 meters,
- higher form neighboring buildings openings (e.g. windows, doors etc.) with horizontal distance less than 10 meters

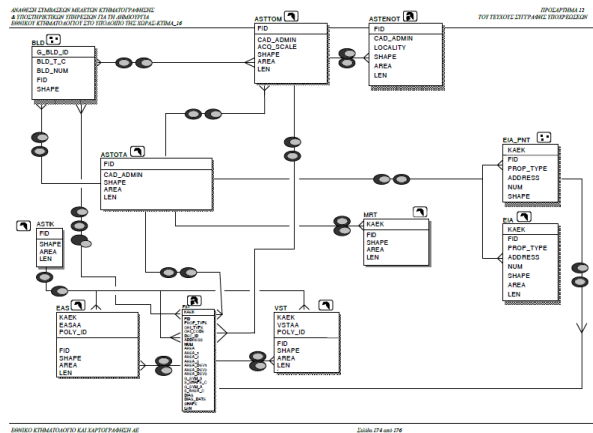
### **Restaurant Ventilation System**

- comply to urban planning regulations,
- be at least 0.5 meters above the building top
- be in that proper height from the building or any other neighboring building, so as there is no nuisance to neighbors in general

# Hellenic Cadastre



Hellenic Cadastre has **2D spatial description** on parcels  
property rights: Spatial Cadastral Data Base



**Descriptive parameters on 3D objects** e.g. floors, properties  
per floor: Descriptive Cadastral Data Base



# Legislation on emissions & Hellenic Cadastre 1/3

## **Definition of property usual use:**

- Official acts on land use and spatial planning: municipal/ urban unit level correlated to Hellenic Cadastre “land parcels” entity Hellenic Cadastre Spatial Data Base.
- Official acts on building regulations: building height, total surface, total plot coverage area by the building, correlated to Hellenic Cadastre “land parcels” entity Hellenic Cadastre Spatial Data Base - descriptive information.
- Official regulations on property exploitation and use described in legal documents and deeds and accepted by all property owners within a land parcel: Land parcels entity, Hellenic Cadastre Spatial Data Base - descriptive information

## Legislation on emissions & Hellenic Cadastre 2/3

**Tolerant nuisance of ventilation systems emission definition is feasible is feasible by incorporating to Hellenic Cadastre system additional information on:**

- Official legislation on air pollutants limits: stand-alone spatial information on Hellenic Cadastre Spatial Data Base.
- Official pollutants spatial dispersion maps: stand-alone spatial information on Hellenic Cadastre Spatial Data Base.

## Legislation on emissions & Hellenic Cadastre 3/3

**Definition of property owners' rights on emissions installations is feasible by incorporating to Hellenic Cadastre system additional information on:**

- Official Building Permits: 2D top views, cross sections and longitudinal models: documents attached to spatial entity Land Parcels.
- Official permissions /authorizations on heating or restaurant ventilation systems: descriptive information of land parcel/ property entity on Hellenic Cadastre Descriptive Data Base.
- Maximum building height: descriptive information of land parcel entity on Hellenic Cadastre Descriptive Data Base.
- Construction characteristics of ventilation system chimney:
  - a) Descriptive information: land parcel entity on Hellenic Cadastre Descriptive Data Base.
  - b) Official approved drawings: attached to spatial entity Land Parcels.

# Conclusions

## **Greek Property Law:**

- foresees regulations & restrictions on emissions, in respect to property owner's right to protect his property from nuisance
- owner obligation to tolerate emissions: do not directly harm his property & are a common and usual characteristic of neighboring buildings
- Guaranties property owner right to issue an official building permit for ventilation systems installations

## ***3D legally defined – 3D space***

**Building Code** includes the necessary regulatory legal f& technical framework on construction of ventilation systems - ***2D & 3D space***

## **Hellenic Cadastre**

- Developed in 2D, includes technical documentation and 3d descriptive documentation on land parcels and buildings developed on them.
- Incorporation of 3D regulation on emissions - land parcel spatial entity

## ***2D - 2.5D future 3D***

***Thank you for your attention!***

***For any comment, remark, suggestion, question please do not hesitate to contact us:  
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