

Geometric & Graphics Programming Lab: Lecture 29

Alberto Paoluzzi

January 27, 2017

- 1 Workshop N.11 – Housing: suburban neighborhood design
- 2 Minimal git/github instructions

Workshop N.11 – Housing: suburban neighborhood design

Housing: suburban neighborhood design

Goal: Develop a model of a **suburban housing neighborhood** in Python, by coherently assembling several instances of **pluggins** previously designed and developed.



Figure 1: Suburban sprawl planning

Design constraints

- Your model **must mimic** a chosen **web example** of suburban neighborhood design (**give URL**)
- Trace the design of **local streets** and **traversing roads** using **transfinite interpolation** of **boundary curves**
- Locate **several instances** of your parametric hose (developed in workshop 10)
- provide a parallelepiped “basement” for your **whole model**
- provide **some green** around the houses . . .
- use the **MATERIAL** pyplasm primitive where **useful** or necessary

Look at some examples

- suburban landscape planning and design
- neighborhood housing planning
- neighborhood planning
- neighborhood houses plans
- planning modern village housing designs
- village housing planning

Some terminology, examples and regulations



Elevations and floor plans from the 1940 edition of Principles

Figure 2:

https://www.nps.gov/nr/publications/bulletins/01workshop/sub_landsc.htm

REQUIREMENTS

- Write a single notebook, named `workshop_11.ipynb`
- Choose a notebook Title, for example `<Model_of_suburban_neighborhood>`
- Start the notebook with a `web reference` and one/more `image/s` of your `model`
- List the `variables` used in your code, with a `textual definition`
- Include the coding of one main generating function named `suburban_neighborhood`
- Provide `images` generated by `executions` of the code.
- Use measures in `meters (m)`

Style specs

- use **meaningfull identifiers** (variables and parameters)
- use **camelCase** ids
- add **Python docstrings** (google for it)
- produce a **single** notebook file, named **workshop_11.ipynb**
- file path: **your_repo/2017-01-27/workshop_11.ipynb**

Minimal git/github instructions

Minimal git/github instructions (1/2)

create your local repository

```
$ mkdir 2017-01-27  
$ cd 2017-01-27  
$ touch workshop_11.ipynb
```

Minimal git/github instructions (2/2)

commit your work

```
$ git add -A .
$ git commit -m "add a short note to commit"
$ git push origin master
```