

COVID, GEOMETRY GENERATORS ET AUTRES CARTO-GEEKERIES

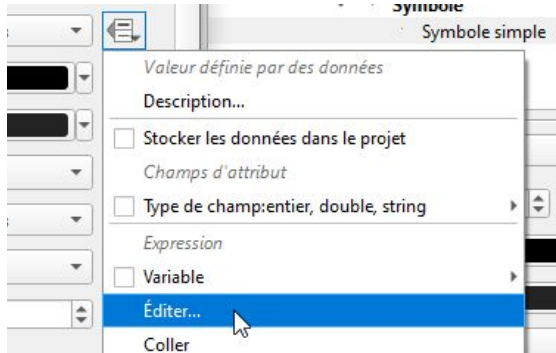
@DATAGISTIPS  MATHIEU RAJERISON

CONFÉRENCE QGIS-FR 2020 - SUR LA TOILE

2013



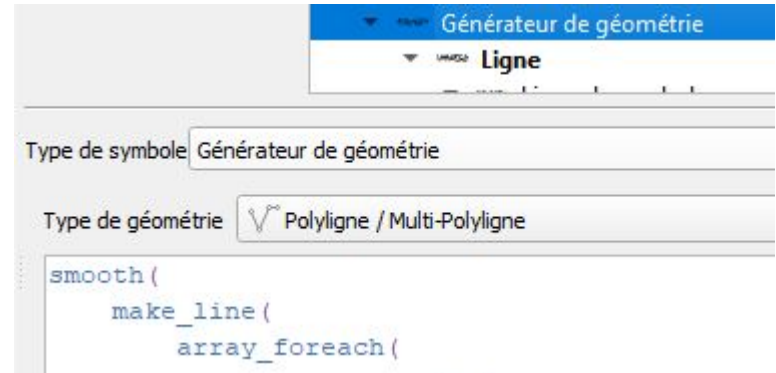
Data-defined properties



2016



Geometry generators



Informationnel
Data-driven

BIEN REÇU !



*une carte
parlante*

AMAZING !



geodataviz

PEUT MIEUX
FAIRE



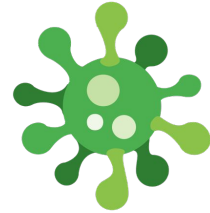
QUE DE LA
FRIME !

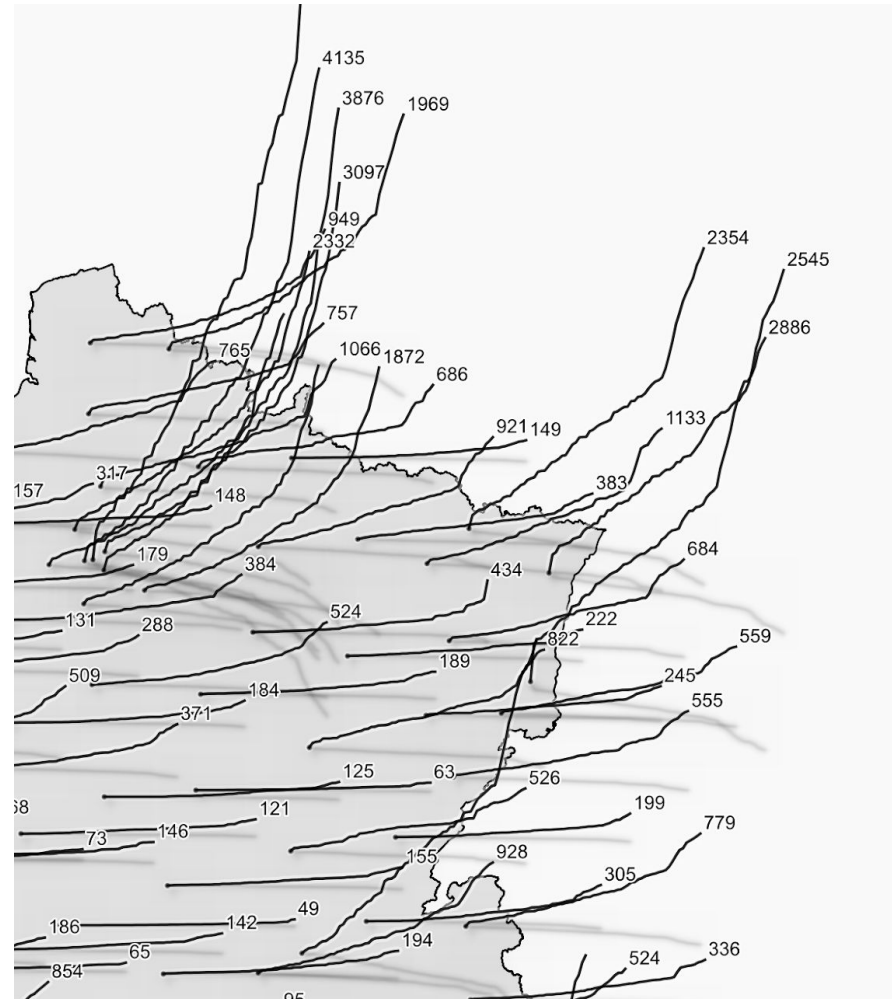


geodata-art

Originalité
Aesthetic-driven

CARTE DE LA COVID





ÉCHOS



Alberto Cairo 
@AlbertoCairo



I hadn't seen this type of map before cc [@kennethfield](#)

[Traduire le Tweet](#)

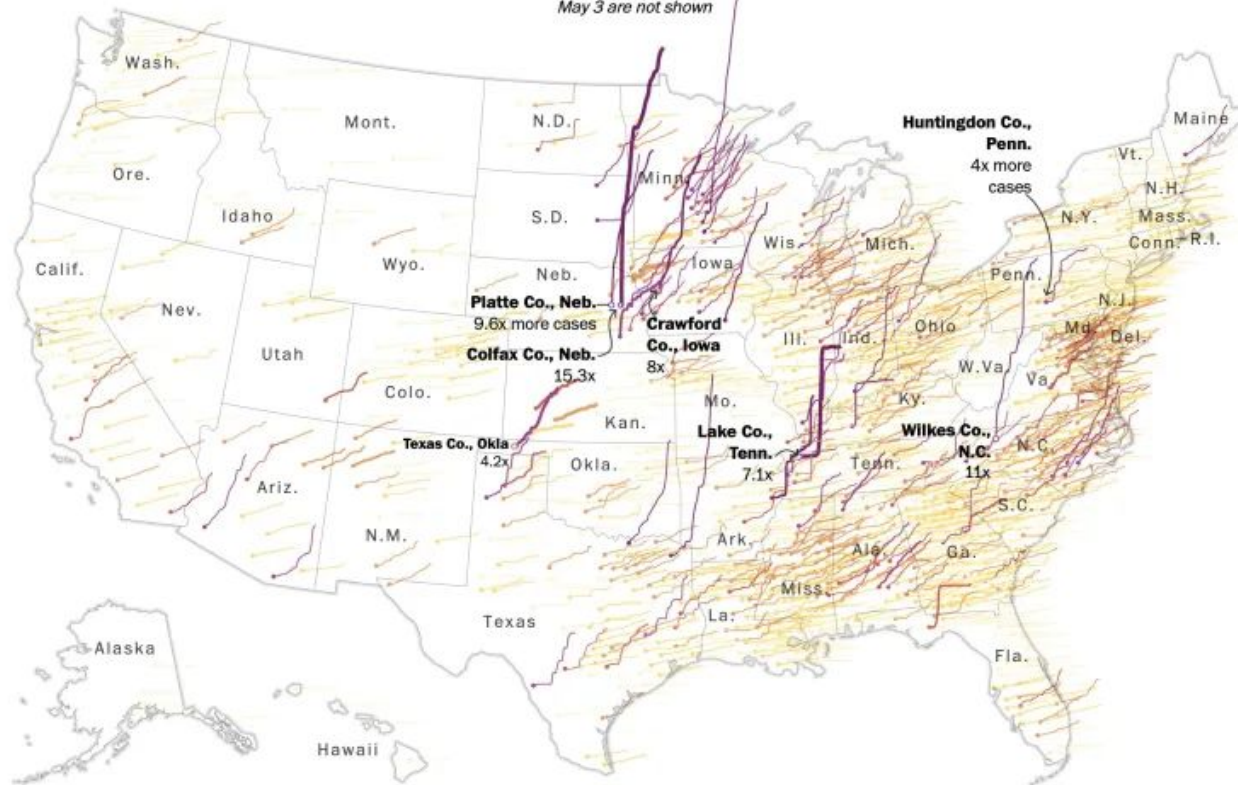
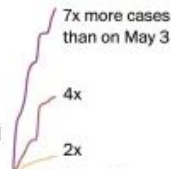
Change in reported cases since May 3

Line thickness shows
the current number of cases
relative to county population



Counties with no cases on
May 3 are not shown

Line height and color
show change in reported
cases relative to May 3.





John
Nelson

CovidPulse



CONCEPTION



Bouches-du-
Rhône



Bouches-du-Rhône, Jour 1, 1
Bouches-du-Rhône, Jour 2, 2
Bouches-du-Rhône, Jour 3, 5
Bouches-du-Rhône, Jour 4, 7
Bouches-du-Rhône, Jour 5, 9
Bouches-du-Rhône, Jour 6, 13
Bouches-du-Rhône, Jour 7, 15
Bouches-du-Rhône, Jour 8, 18
Bouches-du-Rhône, Jour 9, 21

Bouches-du-Rhône

Relation

Bouches-du-Rhône, Jour 1, 1
Bouches-du-Rhône, Jour 2, 2
Bouches-du-Rhône, Jour 3, 5
Bouches-du-Rhône, Jour 4, 7
Bouches-du-Rhône, Jour 5, 9
Bouches-du-Rhône, Jour 6, 13
Bouches-du-Rhône, Jour 7, 15
Bouches-du-Rhône, Jour 8, 18
Bouches-du-Rhône, Jour 9, 21

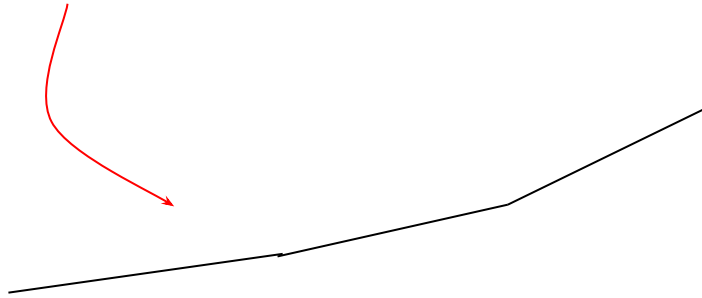
Bouches-du-Rhône

Relation

Bouches-du-Rhône, Jour 1,	1
Bouches-du-Rhône, Jour 2,	2
Bouches-du-Rhône, Jour 3,	5
Bouches-du-Rhône, Jour 4,	7
Bouches-du-Rhône, Jour 5,	9
Bouches-du-Rhône, Jour 6,	13
Bouches-du-Rhône, Jour 7,	15
Bouches-du-Rhône, Jour 8,	18
Bouches-du-Rhône, Jour 9,	21

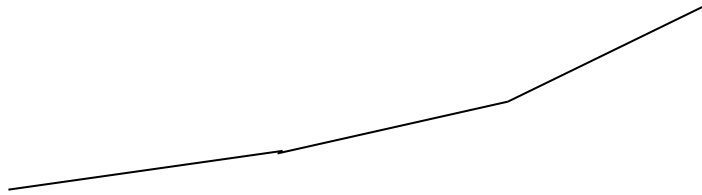
Bouches-du-Rhône, [1, 2, 5, 7, 9, 13, 15, 18, 21]

Bouches-du-Rhône, [1, 2, 5, 7, 9, 13, 15, 18, 21]



Bouches-du-Rhône, [1, 2, 5, 7, 9, 13, 15, 18, 21]

X, Y 



```

with_variable(
  'atlasid',
  @atlas_featureid - 1,
  with_variable(
    'height',
    100,
    with_variable(
      'width',
      200000,
      with_variable(
        'nb_cas',
        array_sort(
          relation_aggregate(
            'donnees_ho_dep_DEPARTEMEN_INSEE_DEP',
            'array_agg',
            to_int("dc")+to_int("hosp")+to_int("rea")+to_int("rad"))
          ),
        geom_from_wkt(
          'LINESTRING (' ||
          x(centroid($geometry)) || ' ' || y(centroid($geometry))
          || ', ' ||
          array_to_string(
            array_foreach(
              generate_series(1, @atlasid),
              -- X Coordinates
              to_string(x(centroid($geometry)) +
                (@element/array_length(@nb_cas)*@width)) || ' ' ||
              -- Y coordinates
              to_string(y(centroid($geometry)) + @nb_cas[@element]*@height)
            ),
            ', ' || ' '
          )
        )
      )
    )
  )
)

```


Informationnel
Data-driven

BIEN REÇU !



*une carte
statistique*

AMAZING !



geodataviz

PEUT MIEUX
FAIRE



QUE DE LA
FRIME !



geodata-art

**Une carte
statistique**

Originalité
Aesthetic-driven

Informationnel
Data-driven

BIEN REÇU !



*une carte
statistique*

AMAZING !



geodataviz

PEUT MIEUX
FAIRE




QUE DE LA
FRIME !

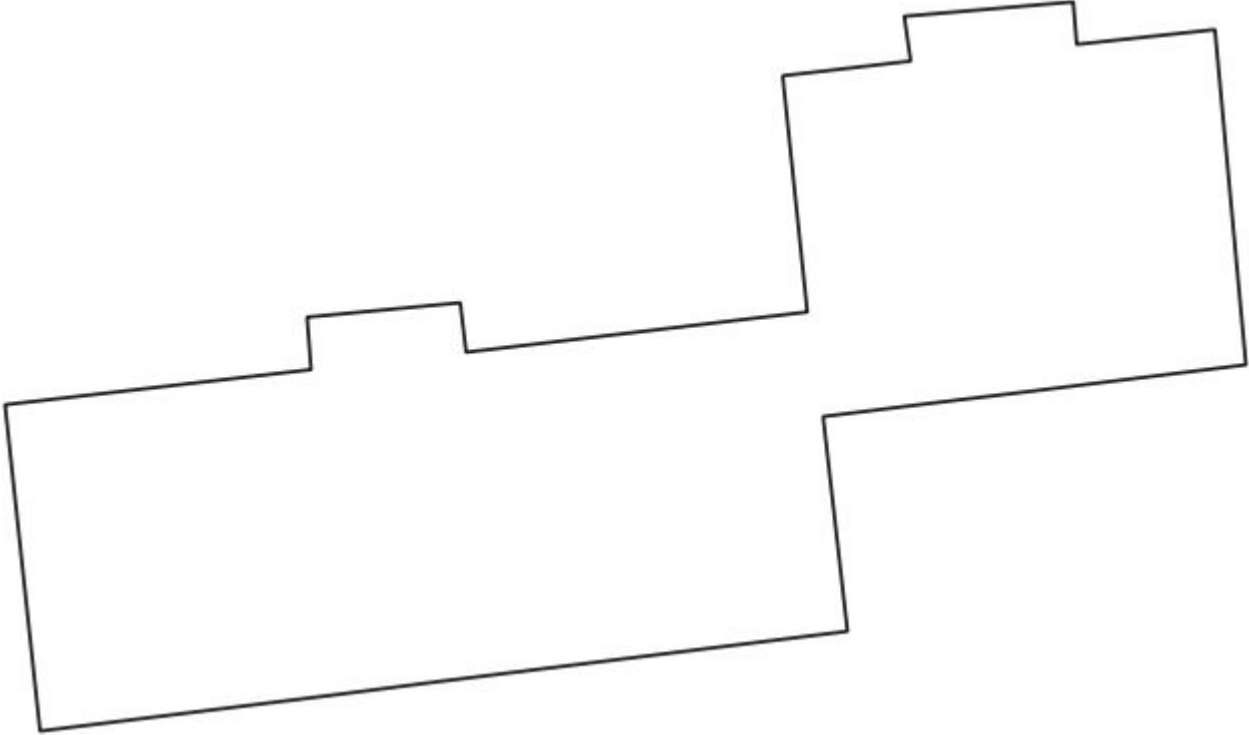


geodata-art

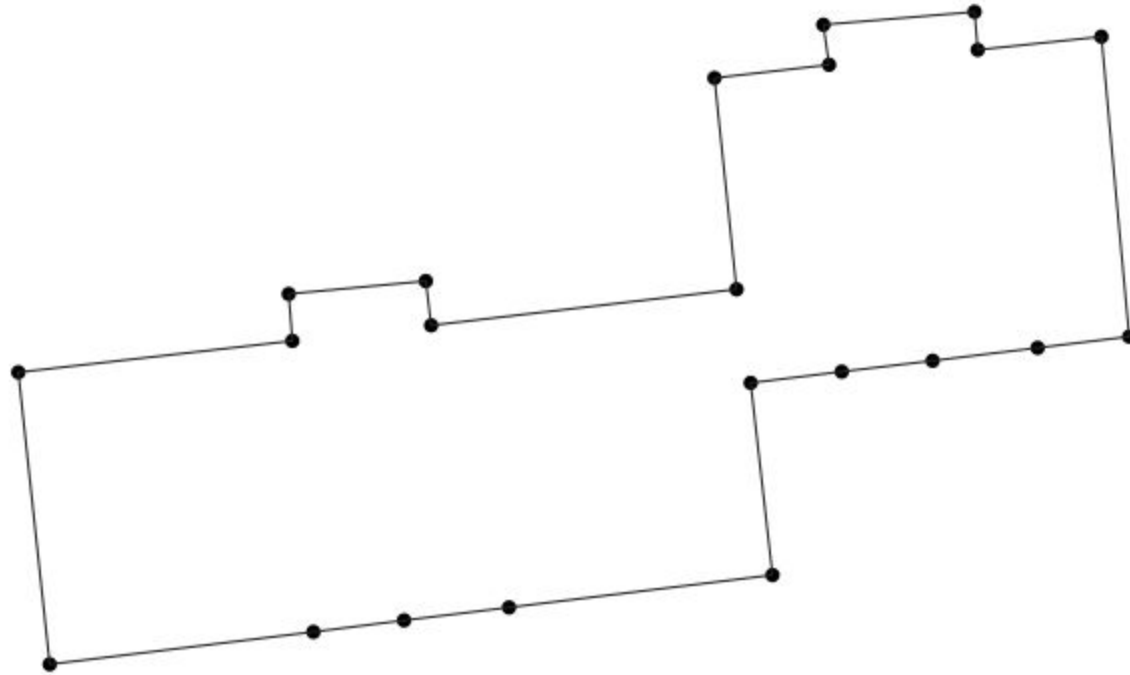
Originalité
Aesthetic-driven



COMMENT FAIRE COMME SI MA
CARTE AVAIT ÉTÉ DESSINÉE AU
CRAYON À PAPIER ?

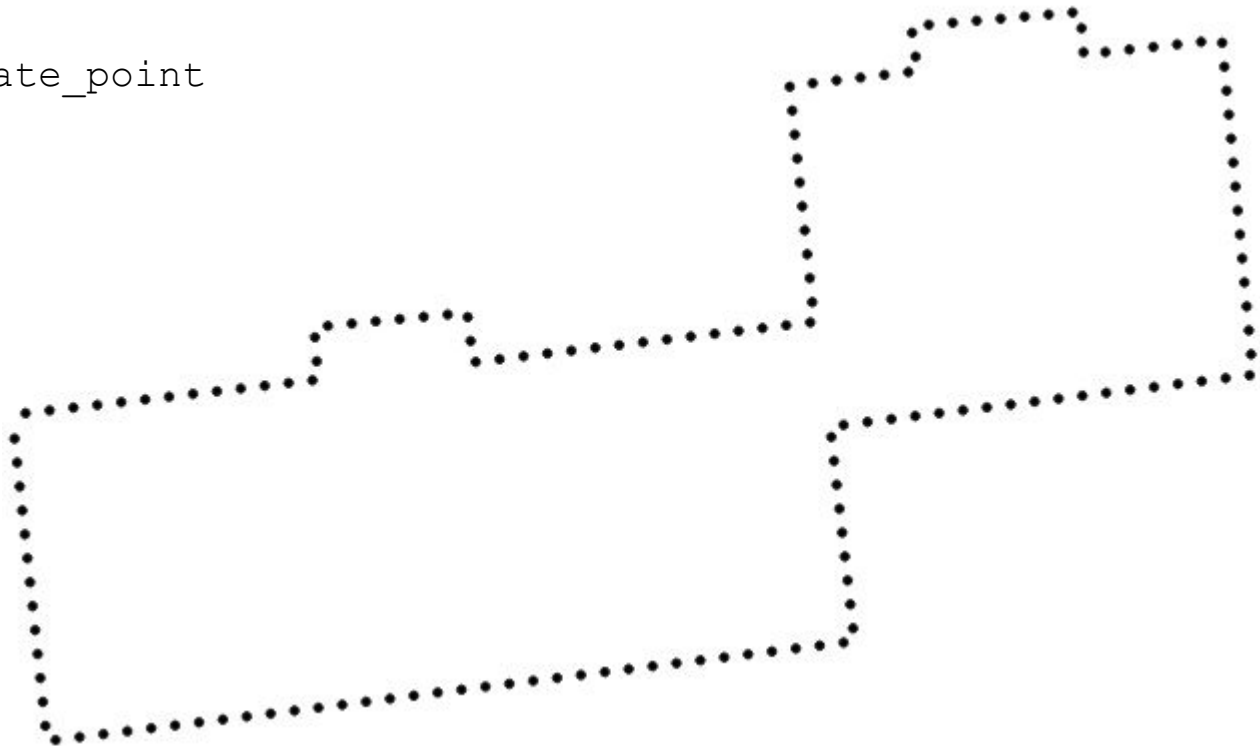


VOICI LES NOEUDS CONSTITUTIFS



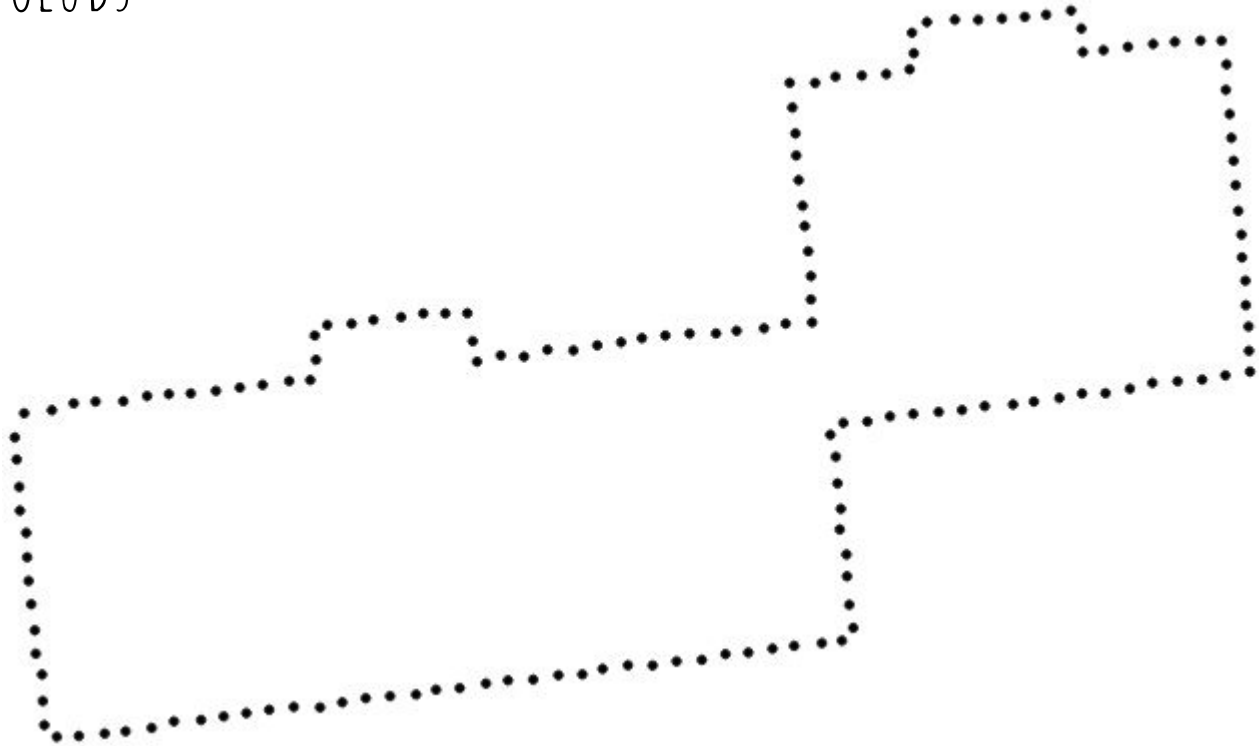
ON DENSIFIE

```
generate_series  
array_foreach  
line_interpolate_point
```

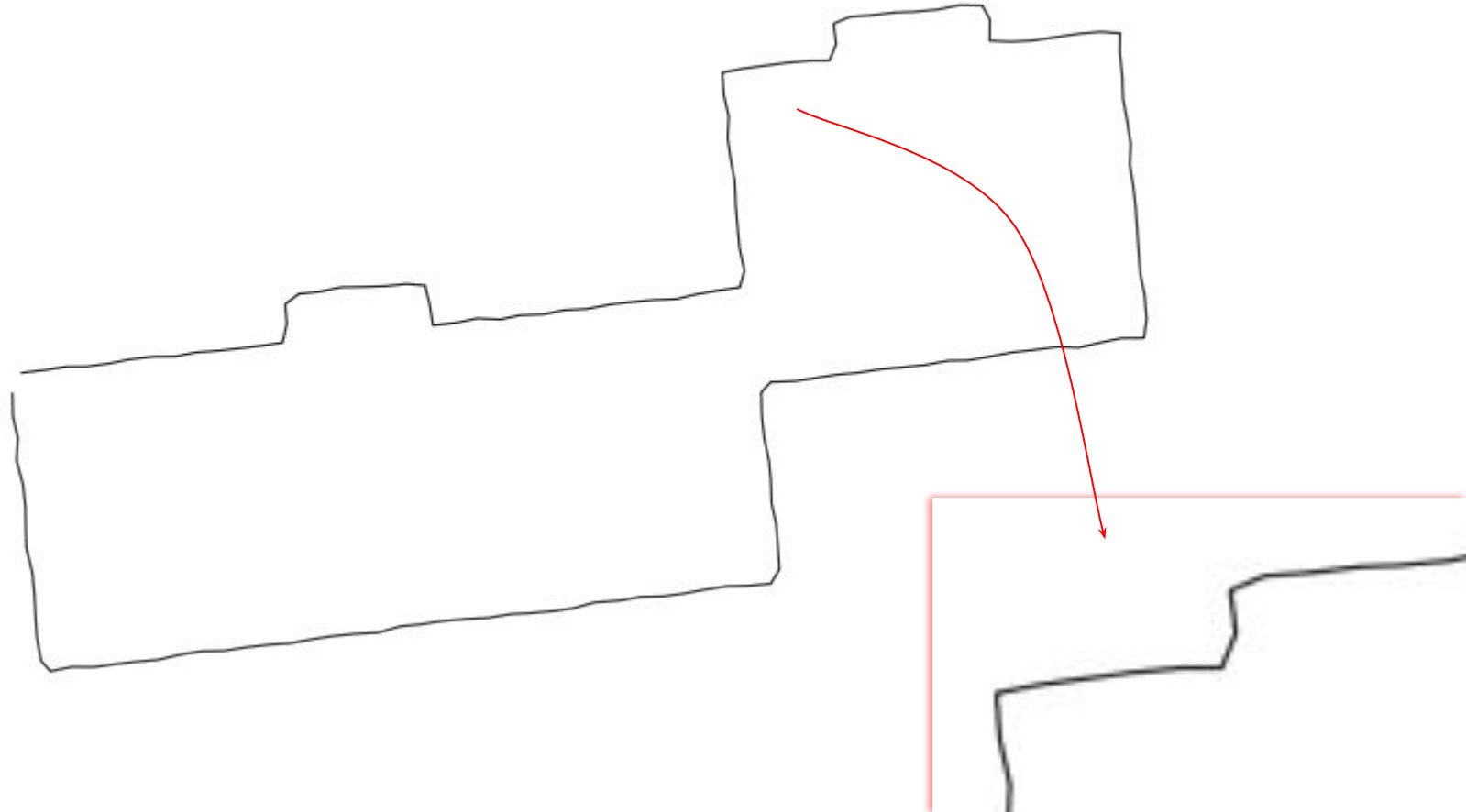


ON DÉCALE AU HASARD LES DIFFÉRENTS NOEUDS

translate

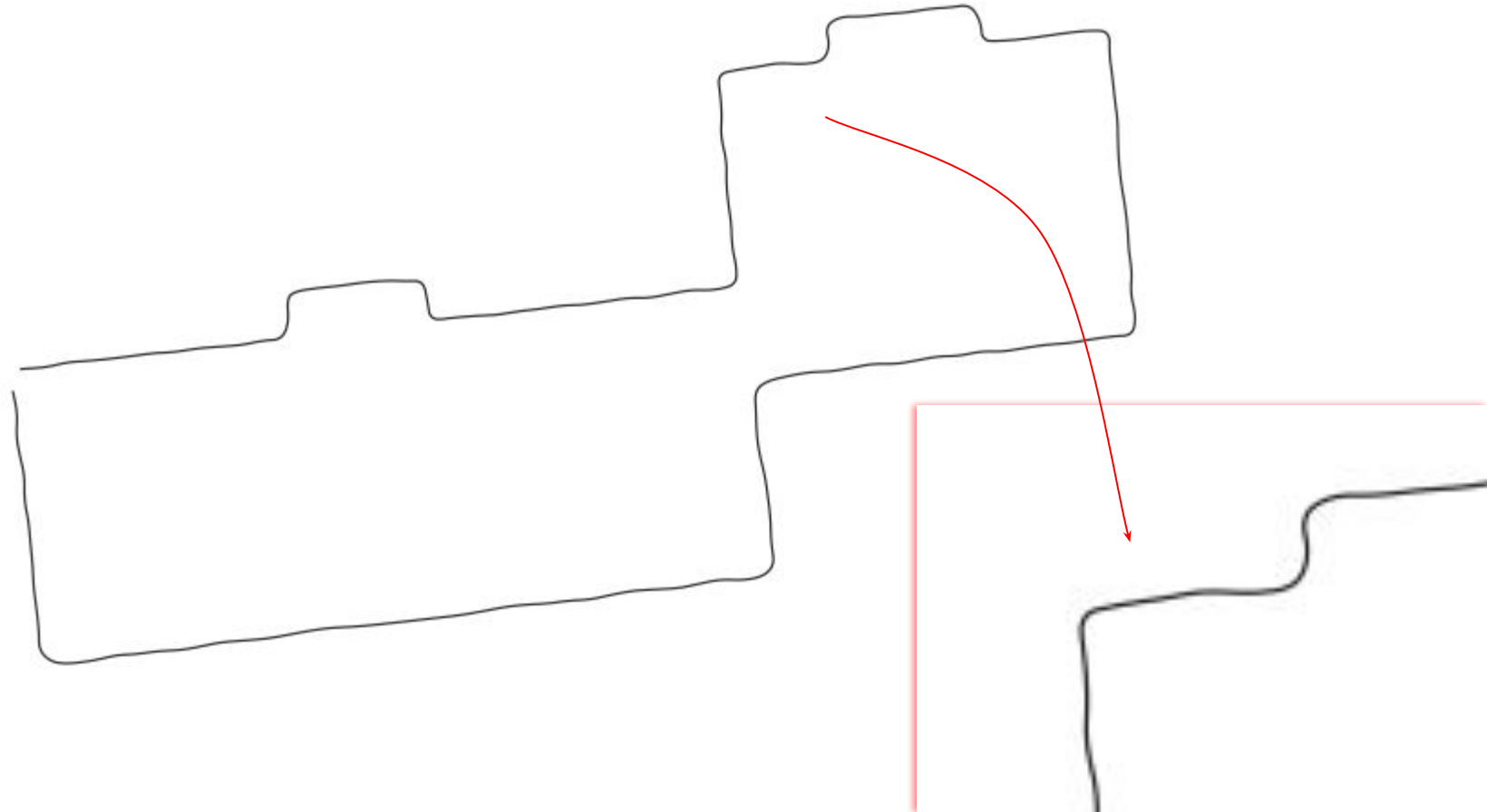


ET VOILÀ LE RÉSULTAT !

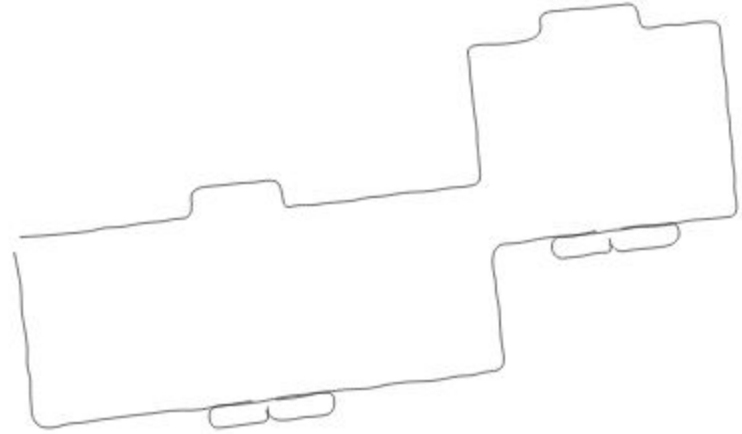
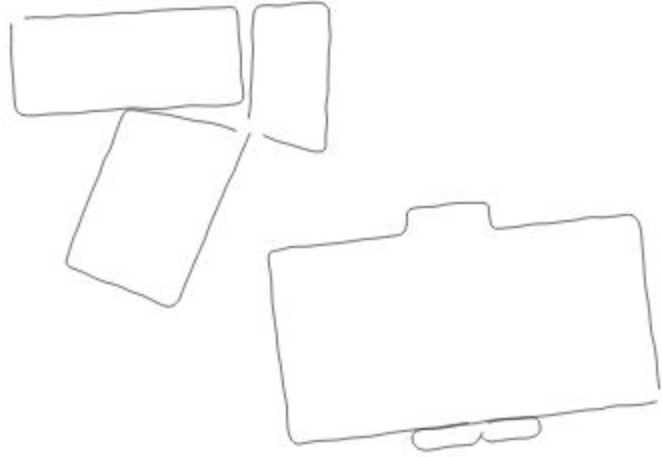


ON LA LISSE

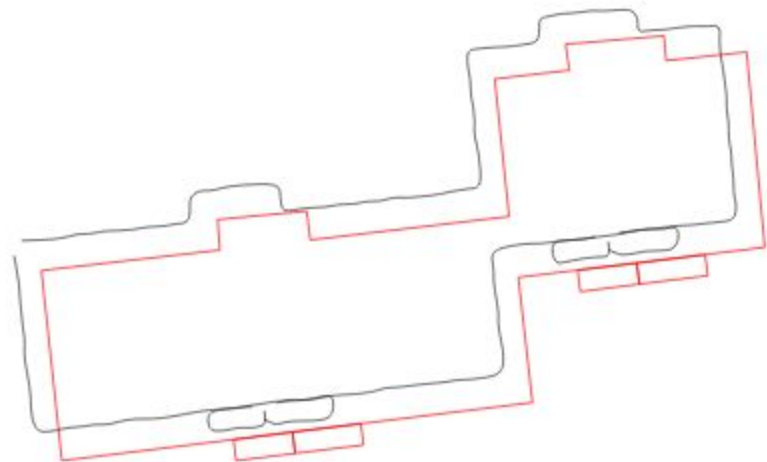
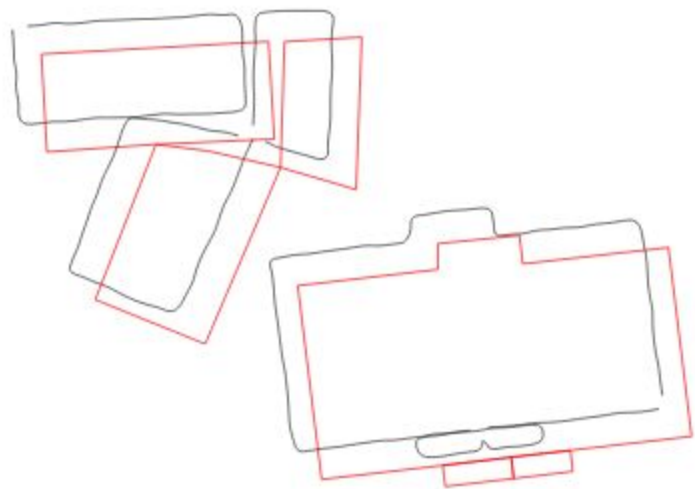
smooth



VOICI LE RÉSULTAT SUR LA COUCHE ENTIÈRE



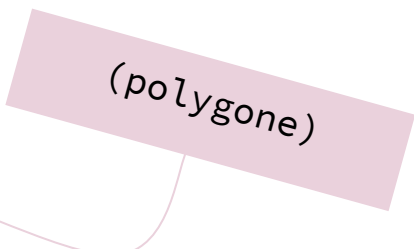
AVANT / APRÈS



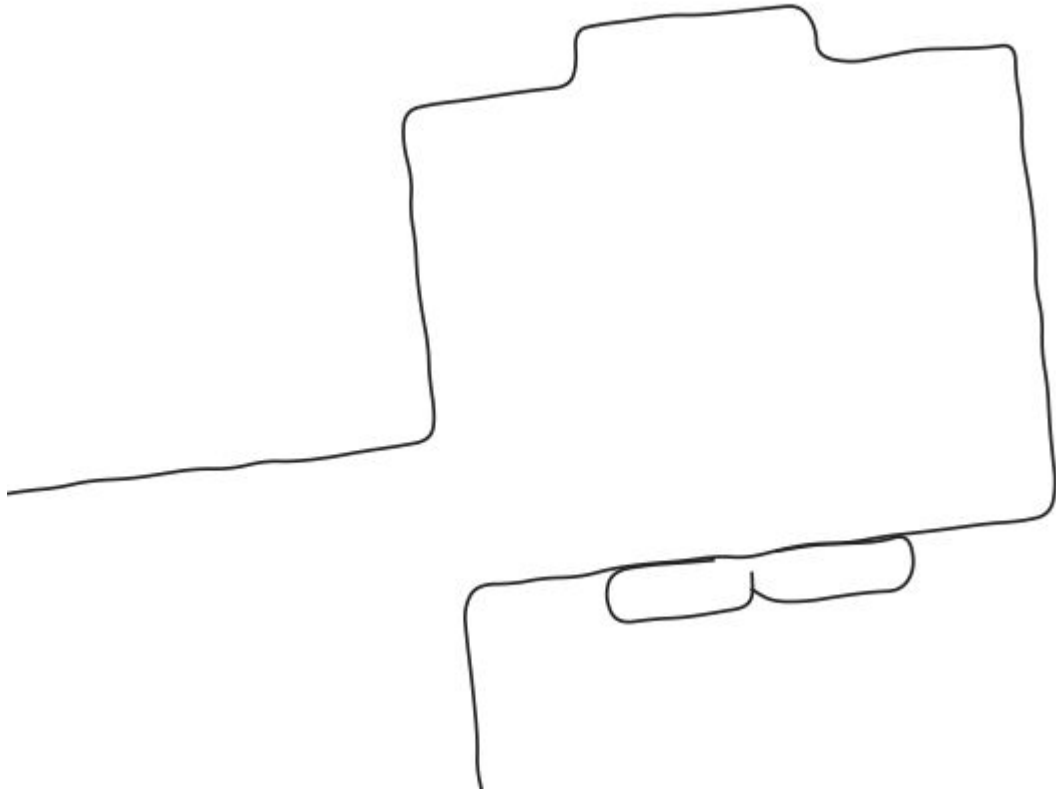
~

```
smooth(  
  make_line(  
    array_foreach(  
      generate_series(  
        1,  
        length(exterior_ring($geometry)),  
        1  
      ),  
      translate(  
        line_interpolate_point(  
          exterior_ring($geometry),  
          @element  
        ),  
        randf(-0.1, 0.1), -- dx  
        randf(-0.1, 0.1) -- dy  
      )  
    )  
  )  
)  
,  
3  
)
```

(polygone)



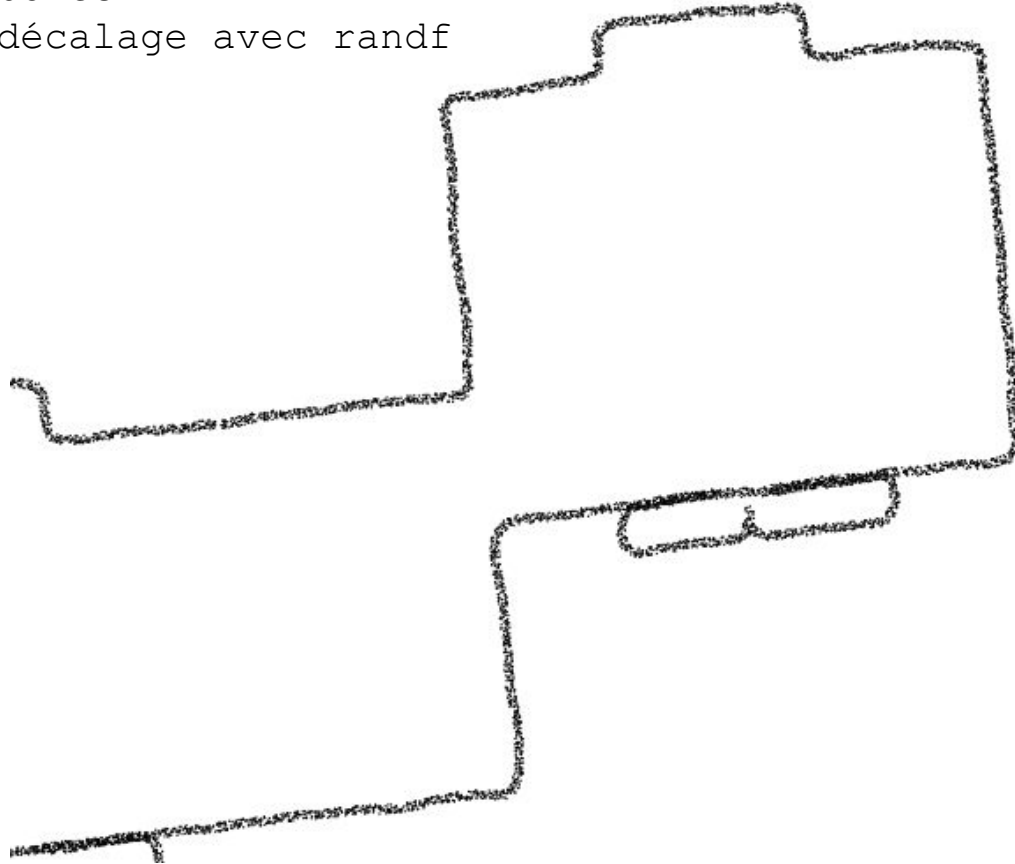
ON PASSE AU CRAYONNÉ ?

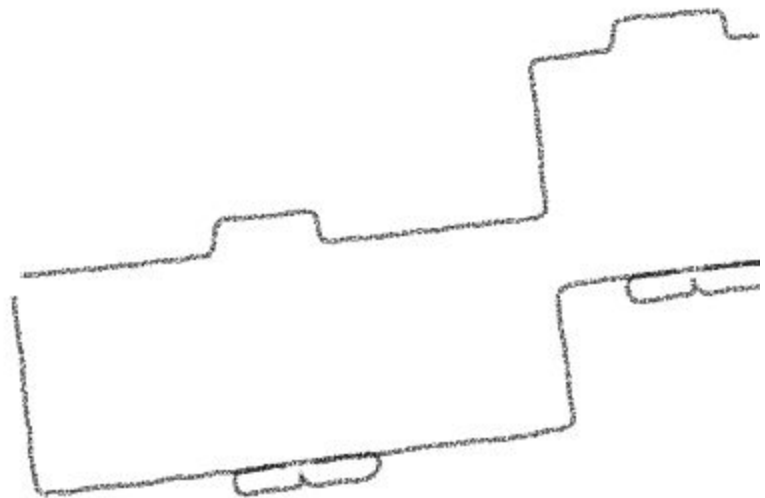
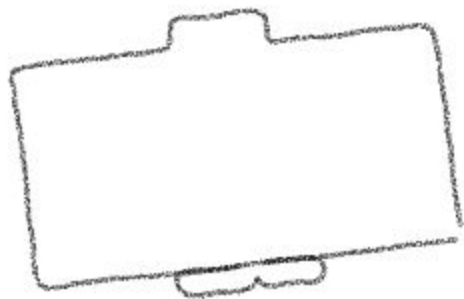
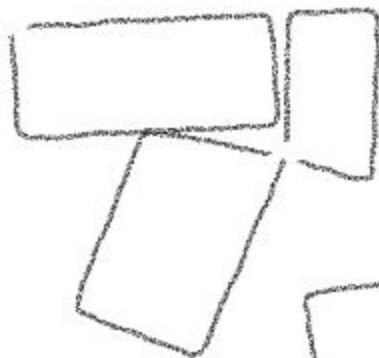


PLEIN DE POINTS QUE L'ON DÉCALE UN PEU AU HASARD

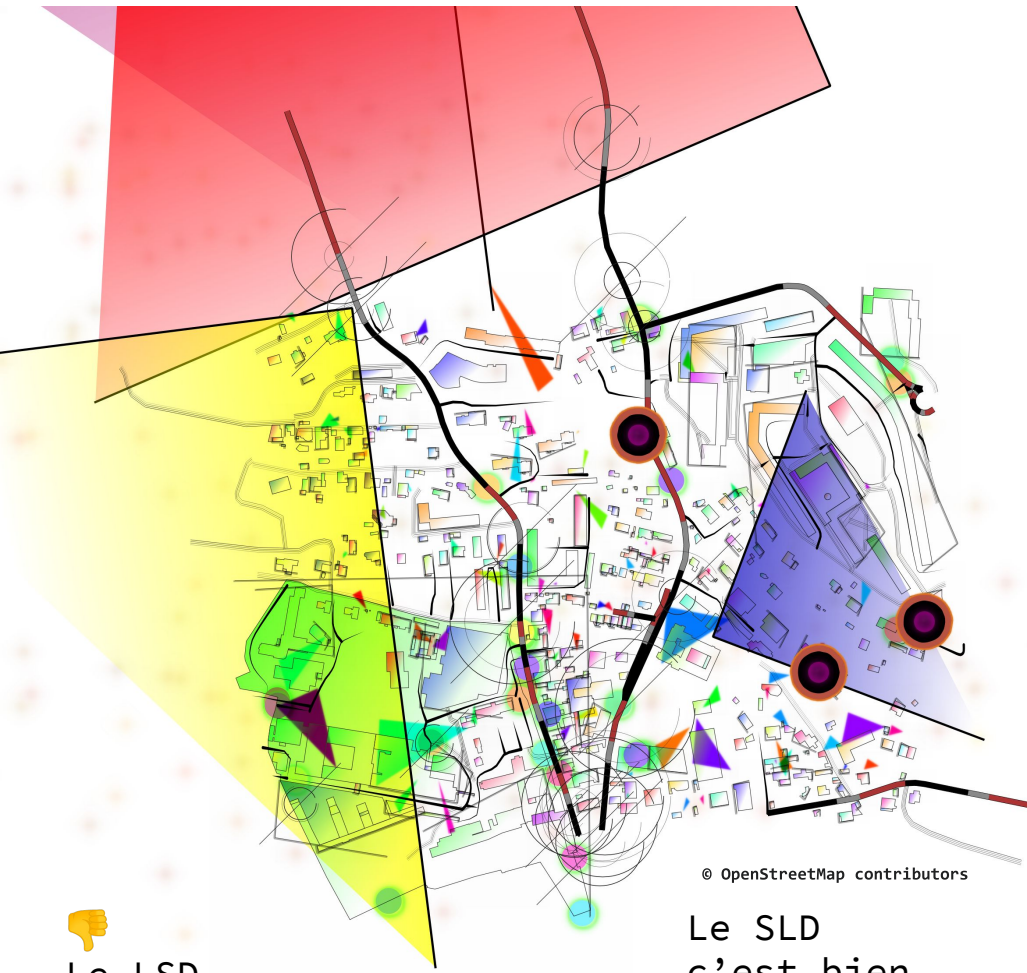
ligne de symboles

propriété : décalage avec randf





QANDINSKY



© OpenStreetMap contributors

Le SLD
c'est bien



Le LSD
c'est mal



Composition VIII - Wassily Kandinsky







STYLES

GÉNÉRATEUR DE GÉOMÉTRIES
LIGNE DE SYMBOLES
REPLISSAGE AVEC MARQUEURS ALÉATOIRES



FONCTIONS

humain → RANDF

GENERATE_SERIES

ARRAY_FOREACH

LINE_INTERPOLATE_POINT

TRANSLATE

MAKE_LINE

BUFFER

NODES_TO_POINTS

EXTERIOR_RING

} design
génératif

formes {

MES CONSEILS

- ISOLER UN ÉLÉMENT, SUR LEQUEL TRAVAILLER
- PRÉFÉRER LE LAMBERT-93 OU PSEUDO-MERCATOR (3857)
- TRAVAILLER EN UNITÉS DE CARTES
- CONSERVER UNE ÉCHELLE DE TRAVAIL ET UTILISER LA LOUPE
- TRAVAILLER LES STYLES EN LIVE (Panneau style des couches)

INSPIREZ-VOUS ET PARTAGEZ VOS CRÉATIONS

[HTTPS://PLUGINS.QGIS.ORG/STYLES/](https://plugins.qgis.org/styles/)

ROMAIN LACROIX

TOPI TJUKANOV

CARTOCALYPSE

KLAS KLARSSON

MERCI DE VOTRE ATTENTION



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<https://datagistips.hypotheses.org/>
<https://github.com/datagistips>