



UNIVERSIDAD
DE MÁLAGA

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QGIS P2b

Sistemas de Información
Geográfica para el Marketing (Geomarketing)



LENGUAJES Y
CIENCIAS DE LA
COMPUTACIÓN
UNIVERSIDAD DE MÁLAGA

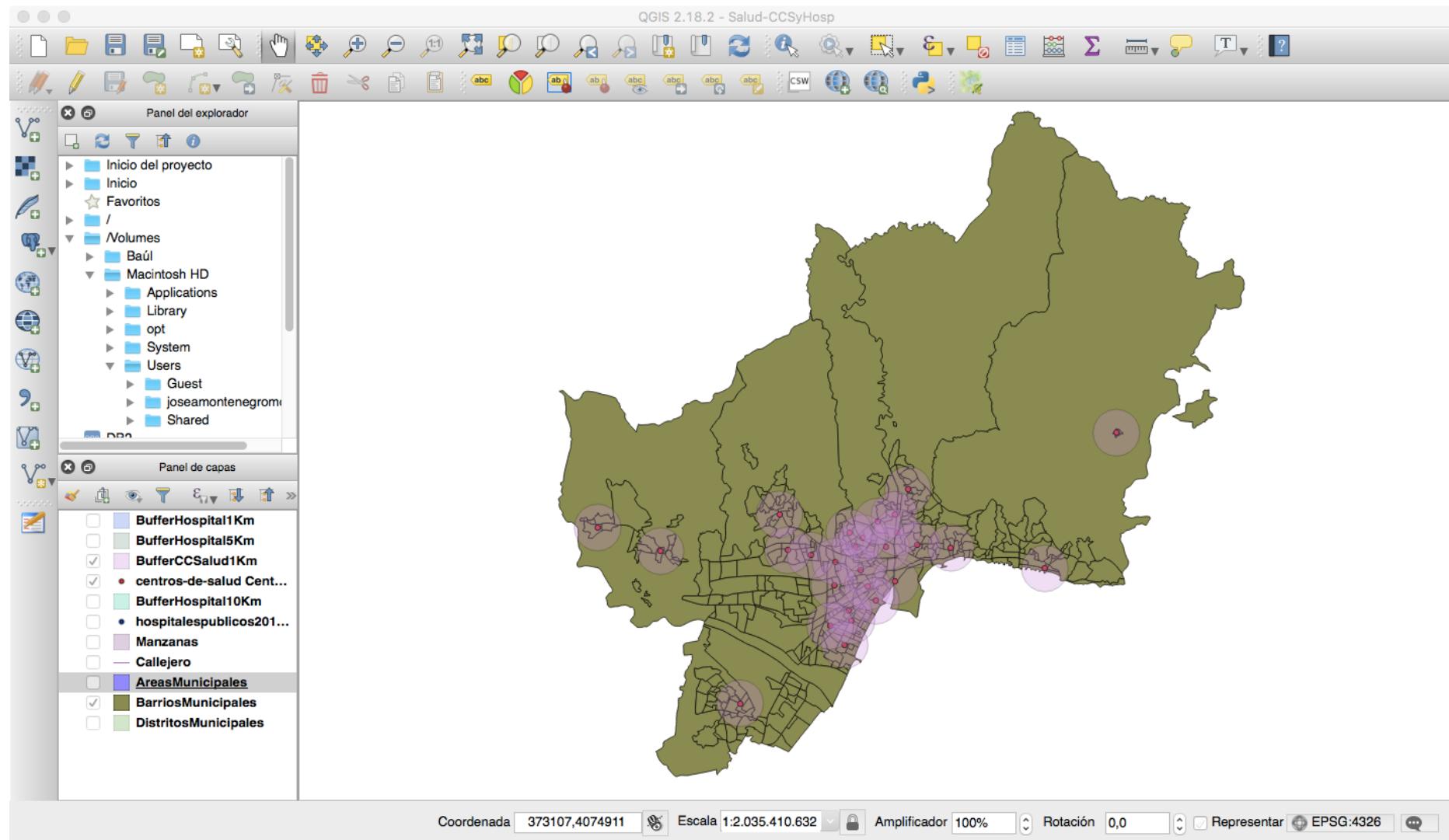
José A. Montenegro Montes
monte@lcc.uma.es
9521 30898

Resumen

- Herramientas de análisis (Influencia)
 - Buffer
 - Diagrama Voronoi
 - Contar puntos en el polígono
 - Distancia al punto más cercano
 - Mapa de Calor

Buffer

Zona de Influencia 1Km (Buffer)



Zona de Influencia 1Km (Buffer)

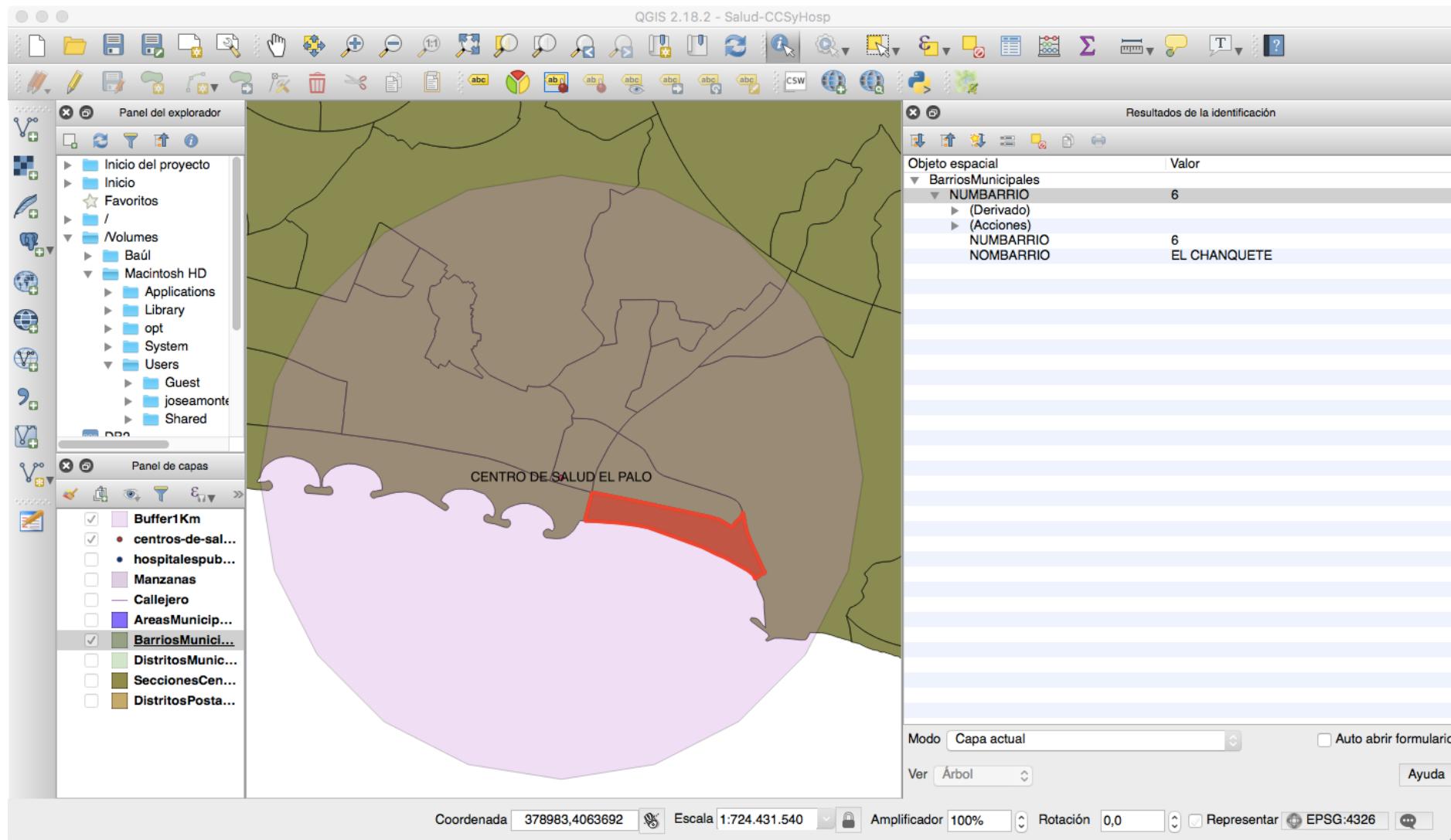


Diagrama Voronoi

Mapa Original

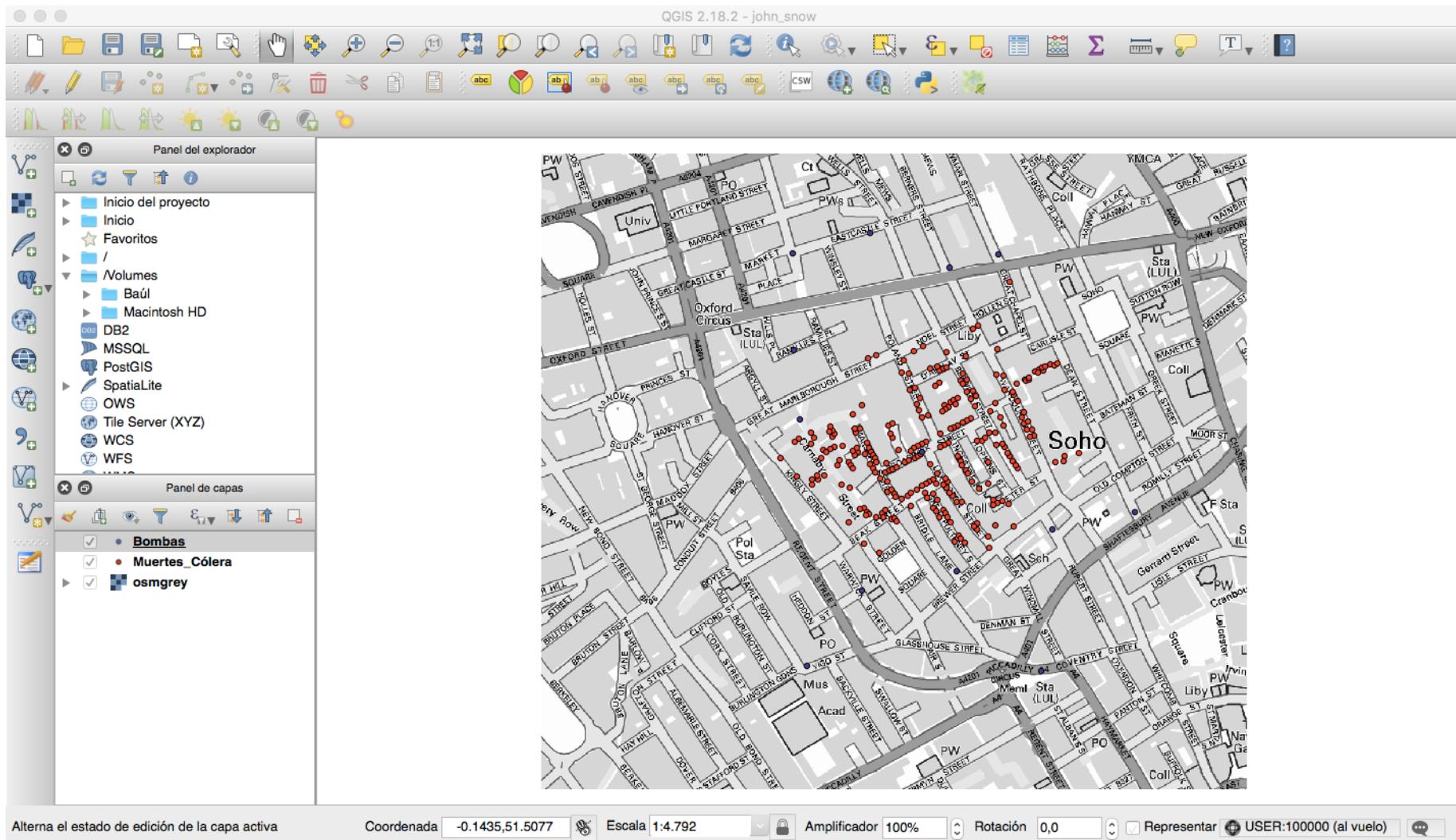


Diagrama Voronoi

In the awesome book that is "["Mastering QGIS" by Kurt Menke, Luigi Pirelli, Richard Smith Jr & John Van Hoesen](#)", it is mentioned on [page 112](#):

The Voronoi polygons tool has an option to set a buffer region. This is the amount by which the resulting polygons will extend beyond the perimeter points.

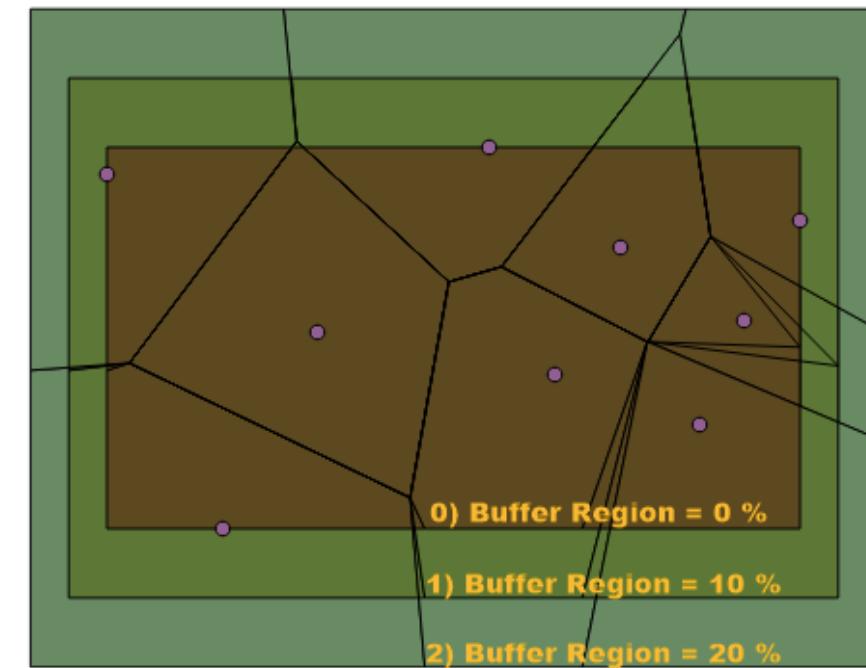
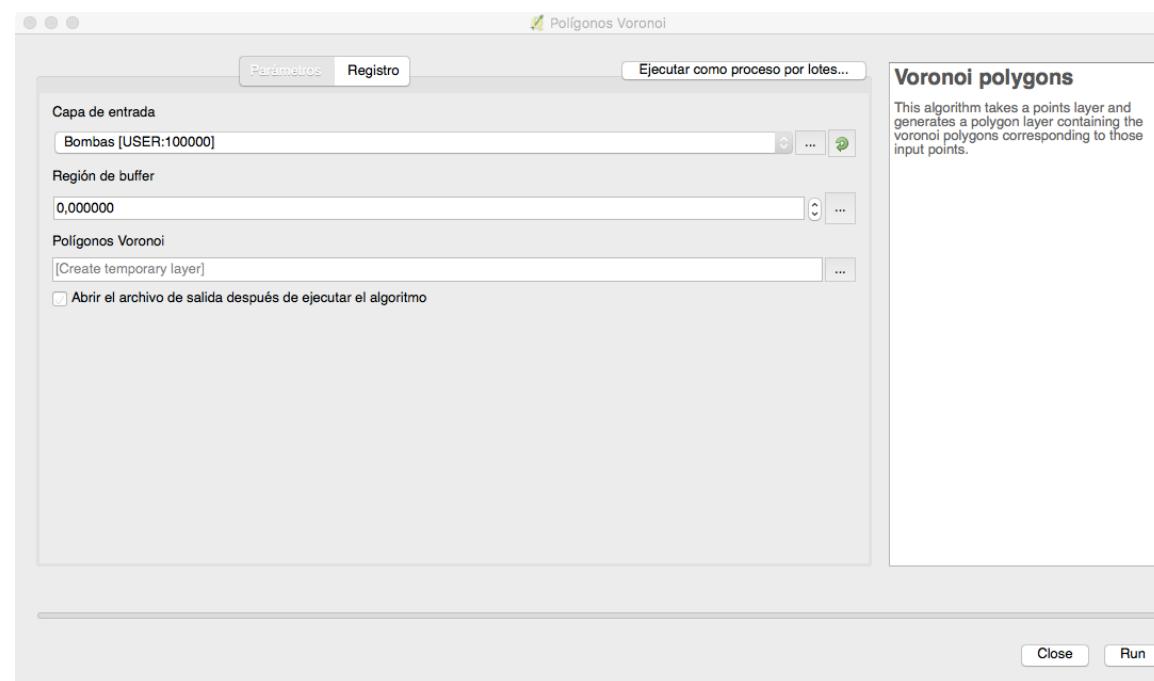
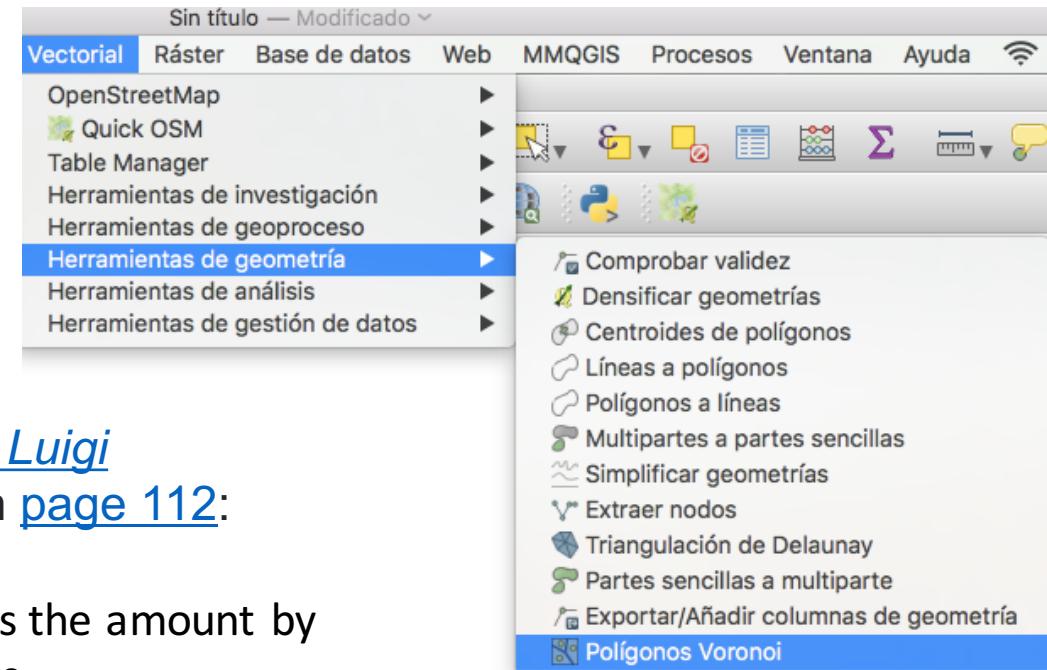
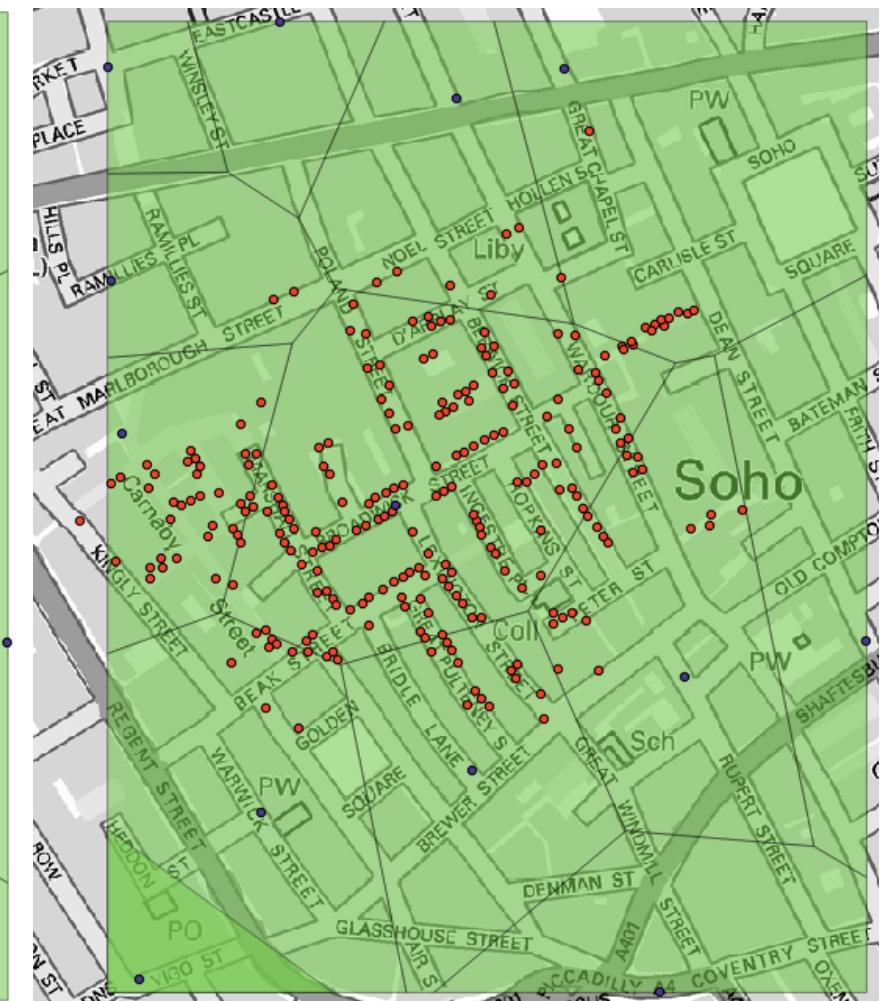
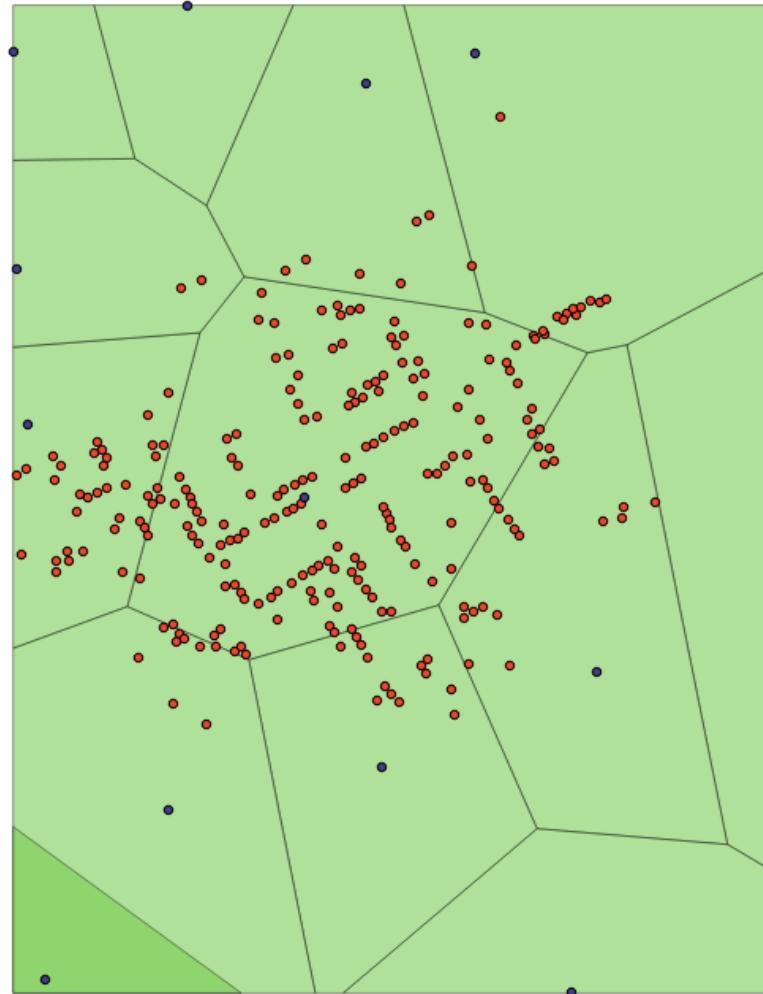
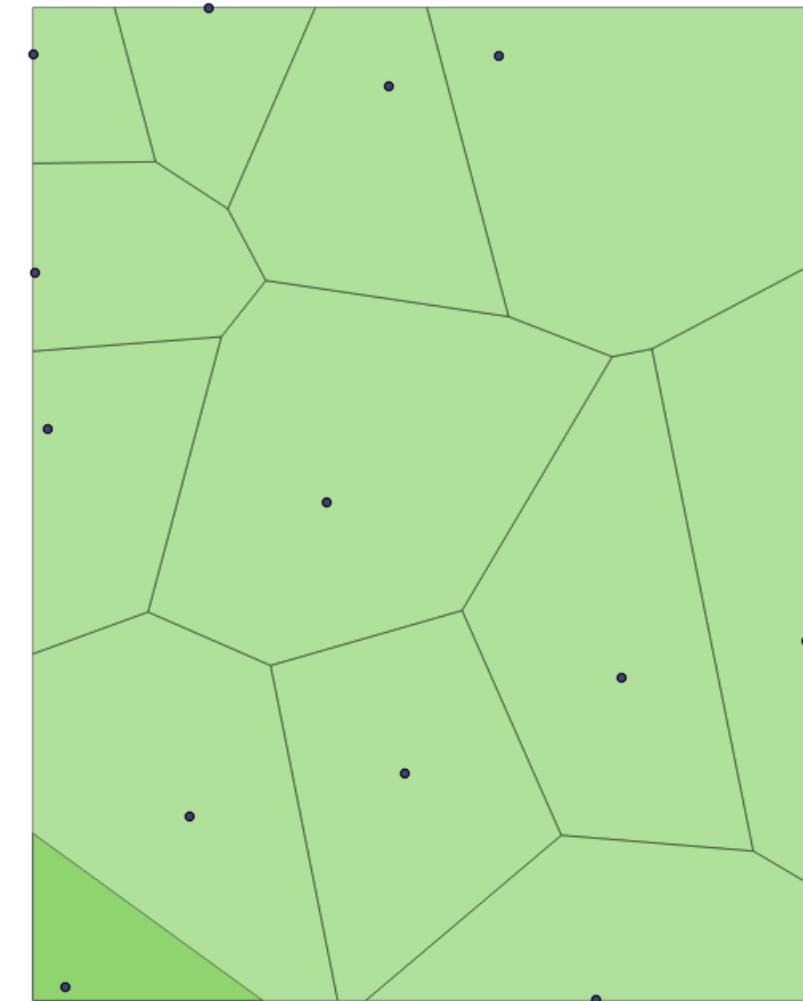
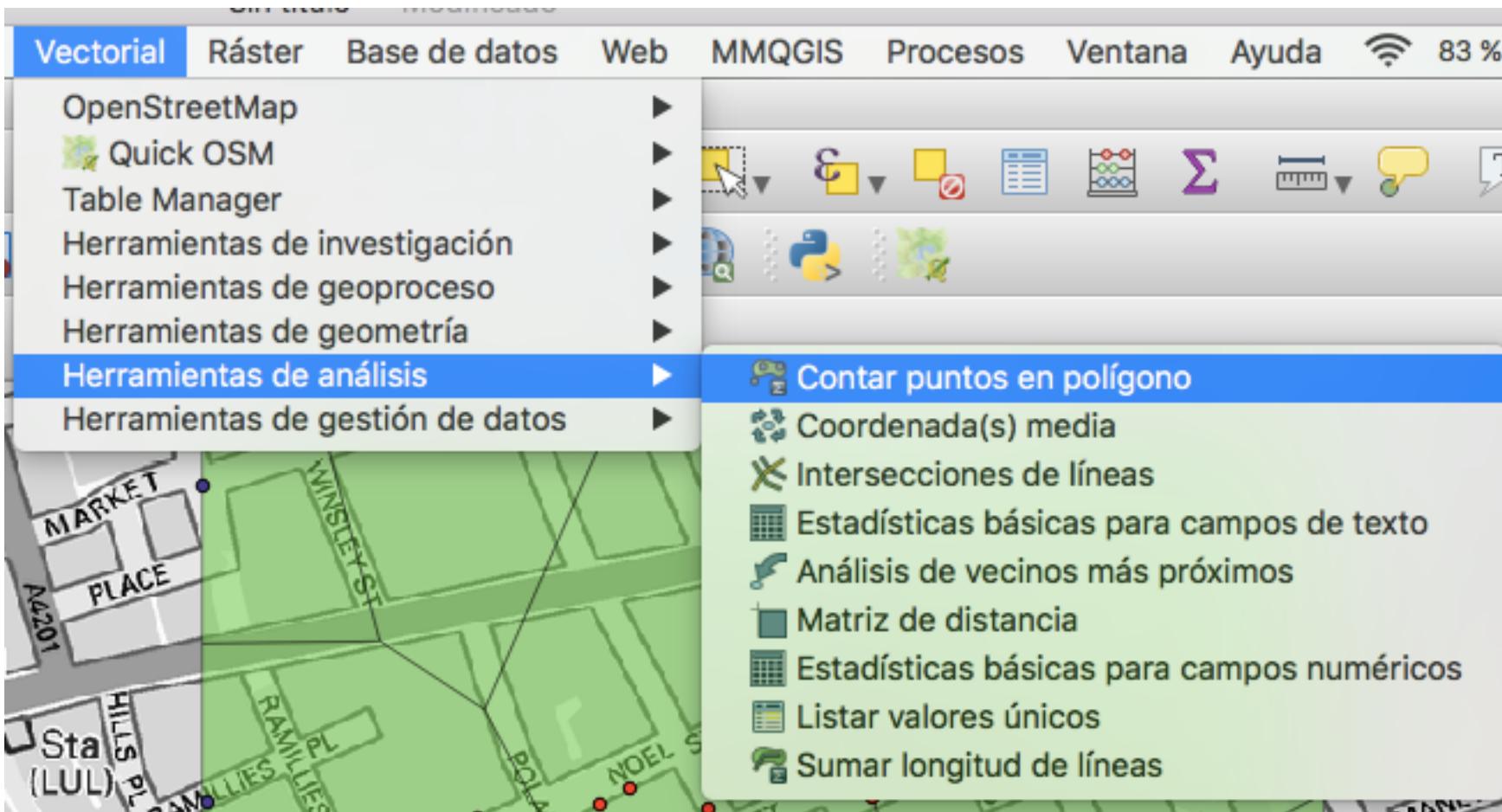


Diagrama Voronoi



Contar puntos en el polígono

Contar puntos en el polígono



Contar puntos en el polígono

The image displays two QGIS windows. On the left is the 'Contar puntos en polígono' (Count points in polygon) algorithm configuration window. It has tabs for 'Parametros' (Parameters) and 'Registro' (Log). The 'Parametros' tab shows inputs: 'Polígonos' set to 'Polígonos Voronoi = 0 [USER:100000]' and 'Puntos' set to 'Muertes_Cólera [USER:100000]'. Below these are fields for 'Nombre de campo de cuenta' (Field name for count) set to 'MUERTES' and 'Número' (Number) set to '[Create temporary layer]'. A checkbox 'Abrir el archivo de salida después de ejecutar el algoritmo' (Open the output file after running the algorithm) is unchecked. The 'Run' button is at the bottom right. The 'Registro' tab contains a link 'Ejecutar como proceso por lotes...' (Run as batch process...).

The central part of the image shows the 'Count points in polygon' algorithm description. It states: 'This algorithm takes a points layer and a polygon layer and counts the number of points from the first one in each polygons of the second one.' It also notes: 'A new polygons layer is generated, with the exact same content as the input polygons layer, but containing an additional field with the points count corresponding to each polygon.'

On the right is the 'Propiedades de la capa - Muertes | General' (Layer properties - Muertes | General) dialog. The 'General' tab is selected. It shows the layer name 'Muertes', its source 'Polygon?uuid=43fbfdde-b057-4141-9875-f92492e6ea74&crs=USER:100000&field=id:integer&field=MUERTES:integer', and its SRID 'SRC seleccionado (USER:100000, * SRC generado (+proj=tmerc +lat_0=49 +lon_0=-2 +k=0.9996012717 +x_0=400000 +y_0=-100)' highlighted with a red box. Other tabs include 'Estilo' (Style), 'Etiquetas' (Labels), 'Campos' (Fields), 'Representación' (Representation), 'Visualizar' (Visualize), 'Acciones' (Actions), 'Uniones' (Unions), 'Diagramas' (Diagrams), 'Metadatos' (Metadata), 'Variables' (Variables), and 'Leyenda' (Legend). The 'Visibilidad dependiente de la escala' (Visibility dependent on scale) and 'Filtro de objeto del proveedor' (Provider object filter) sections are also visible.

Contar puntos en el polígono

Muertes :: Objetos totales: 13, filtrado...

	Id	MUERTES
1	1	152
2	2	35
3	3	2
4	4	0
5	5	19
6	6	13
7	7	0
8	8	9
9	9	0
10	10	0
11	11	12
12	12	7
13	13	0

Mostrar todos los objetos espaciales



Resultados de la identificación

Objeto espacial	Valor
▼ Muertes	
► (Derivado)	1
► (Acciones)	
Id	1
MUERTES	152

Modo Capa actual

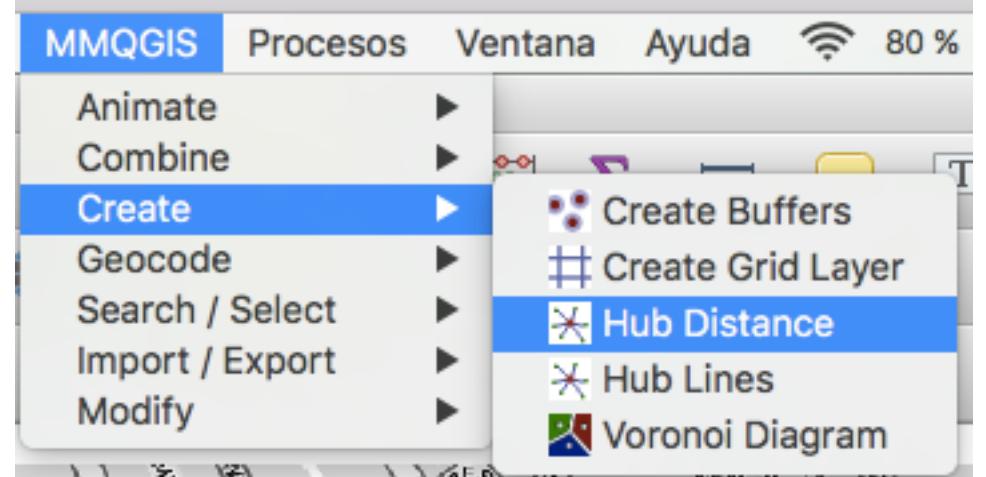
Auto abrir formulario

Ver Árbol

Ayuda

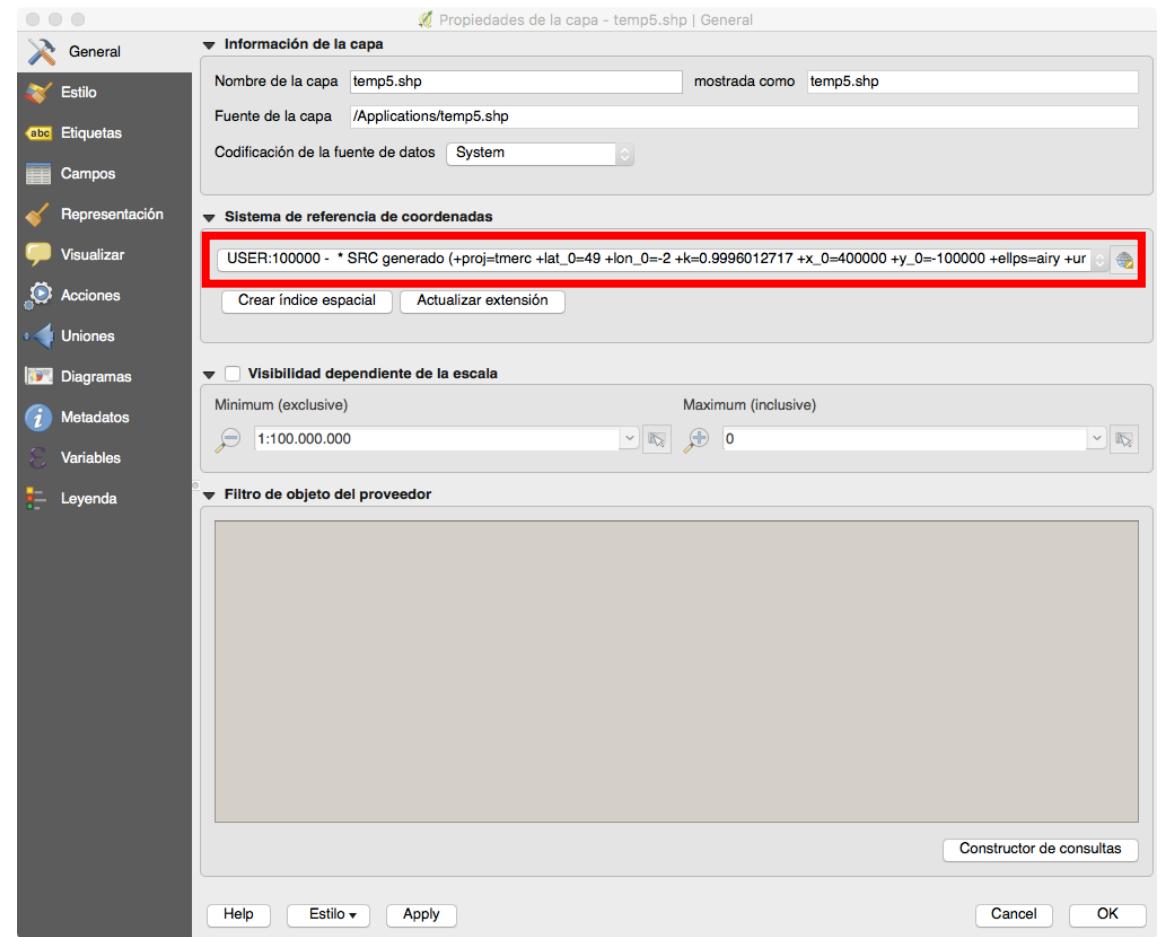
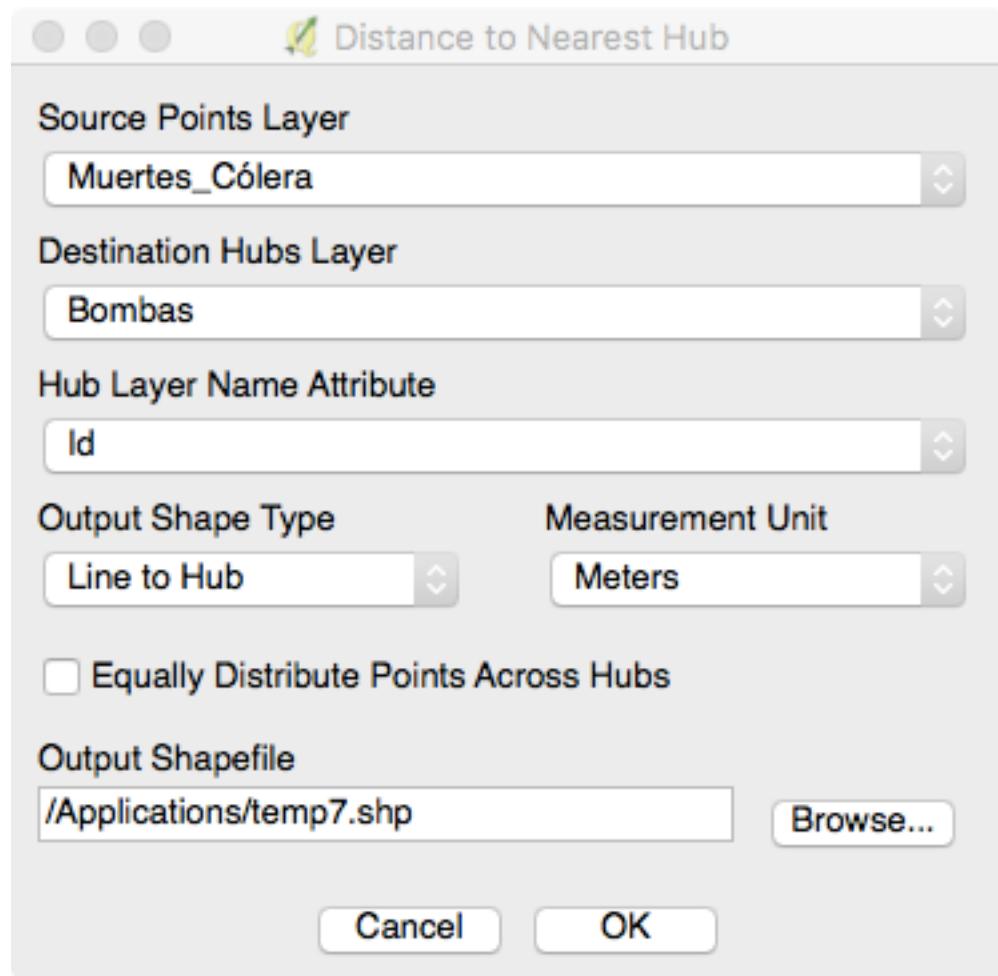
Distancia al punto más cercano

MMQGIS

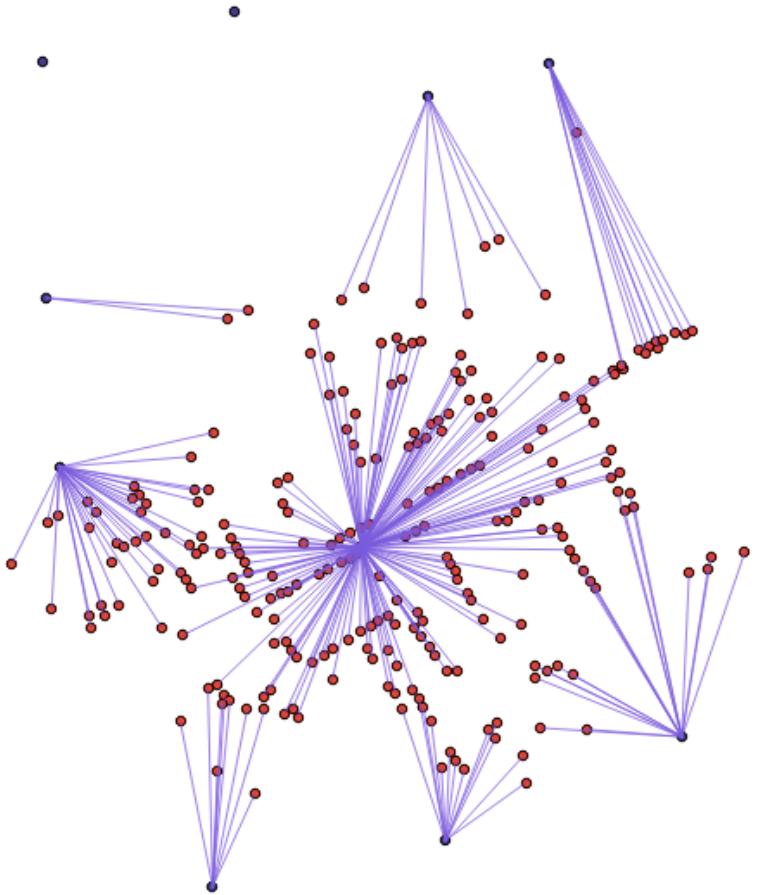


The screenshot shows the QGIS plugin manager window. The search bar at the top contains the text 'MMQ'. On the left, there is a sidebar with categories: 'Todos', 'Instalado' (highlighted in green), 'No instalado', and 'Configuración'. The main panel displays the details for the 'mmqgis' plugin. The title is 'mmqgis' and the subtitle is 'A collection of QGIS vector layer operation plugins'. A brief description follows: 'MMQGIS is a set of Python plugins for manipulating vector map layers in Quantum GIS: CSV input/output/join, geocoding, geometry conversion, buffering, hub analysis, simplification, column modification, and simple animation. MMQGIS provides an alternative to the Processing toolbox, with verbose progress reporting, an intuitive user interface, direct shapefile/CSV-file access, and some additional capabilities missing from other plugin sets.' Below the description is a rating section with five yellow stars and the text '165 voto(s) de valoración, 388144 descargas'. Further down are sections for 'Categoría: Vector', 'Etiquetas: merge,animate,delete,sort,vector', 'Más información: [página web](#) [bug tracker](#) [repositorio de código](#)', 'Autor: Michael Minn', 'Versión instalada: 2017.2.28 (en /Users/joseamontenegro/.qgis2/python/plugins/mmqgis)', and 'Versión disponible: 2017.2.28 (en Repositorio oficial de complementos de QGIS)'. At the bottom of the window are buttons for 'Actualizar todos', 'Desinstalar complemento', 'Reinstalar complemento', 'Close', and 'Help'.

Distancia al punto más cercano

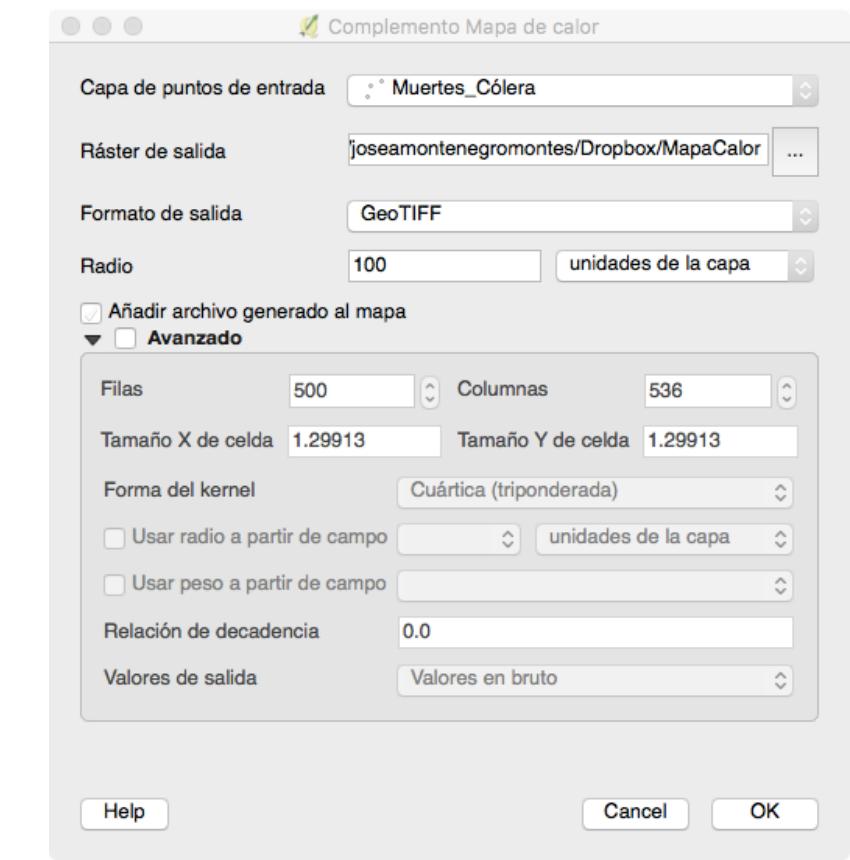
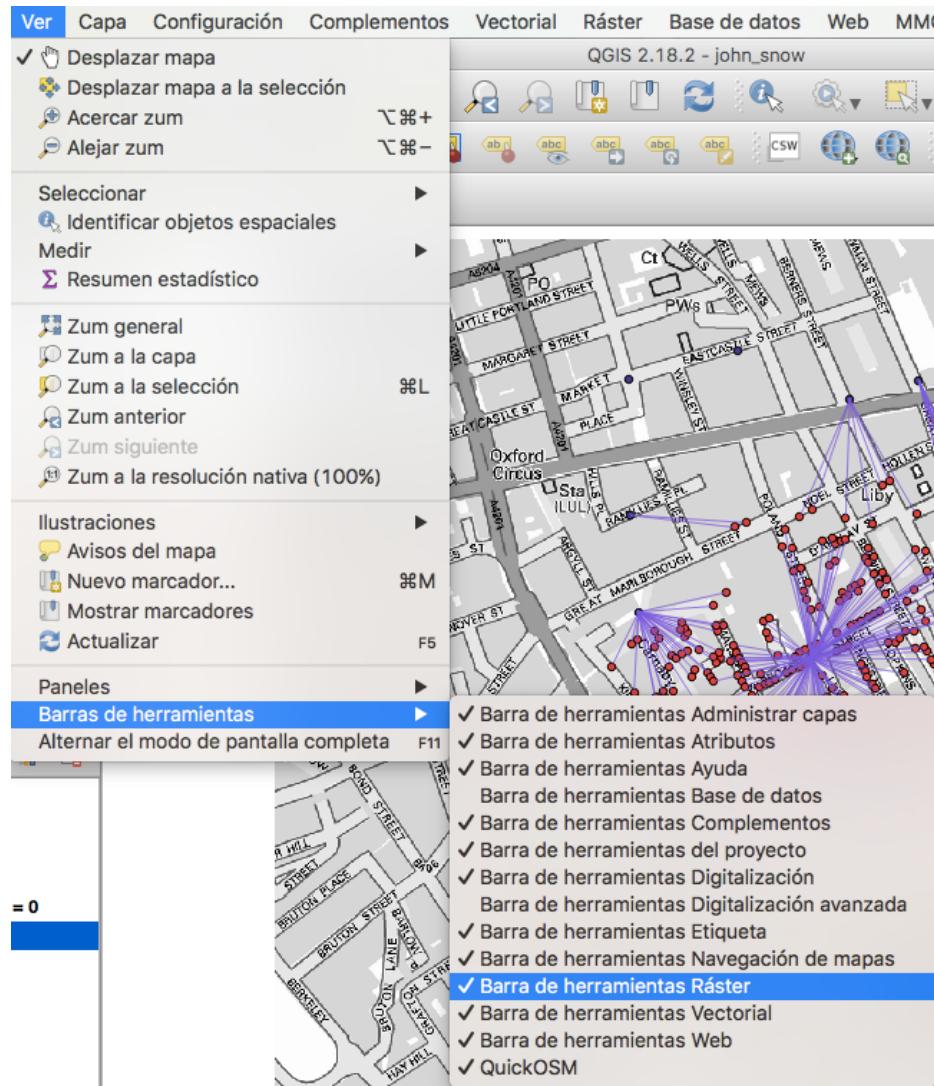


Distancia al punto más cercano

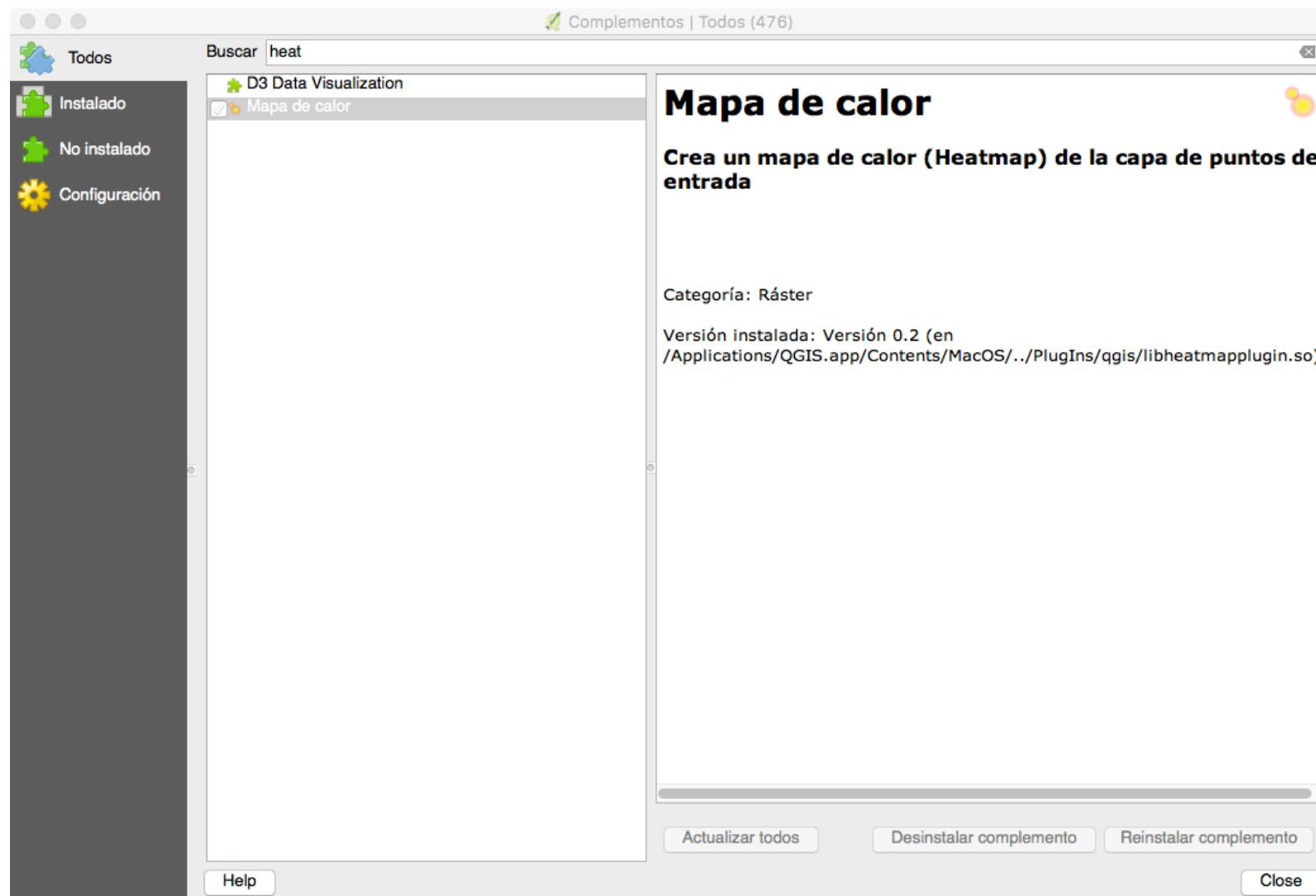


Mapa de Calor

Mapa de Calor

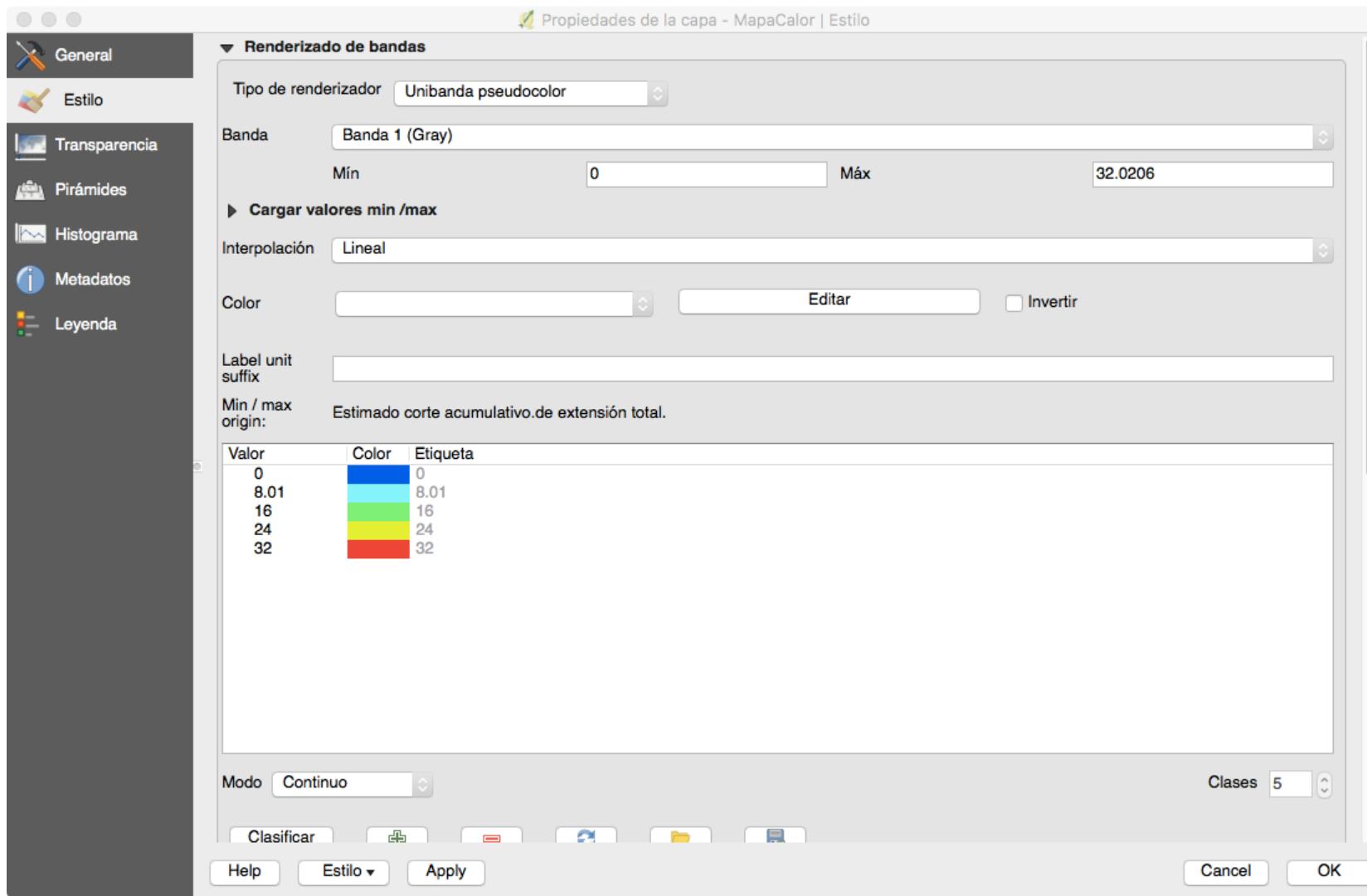


Complemento Mapa de Calor (HeatMap)

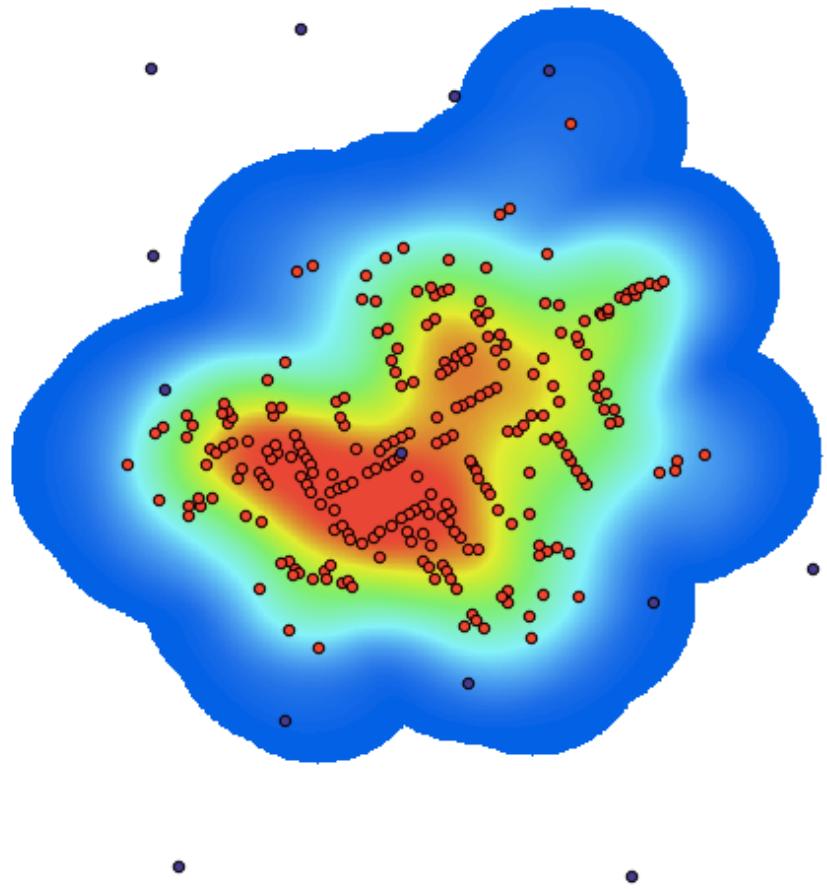


En caso que no aparezca

Mapa de Calor



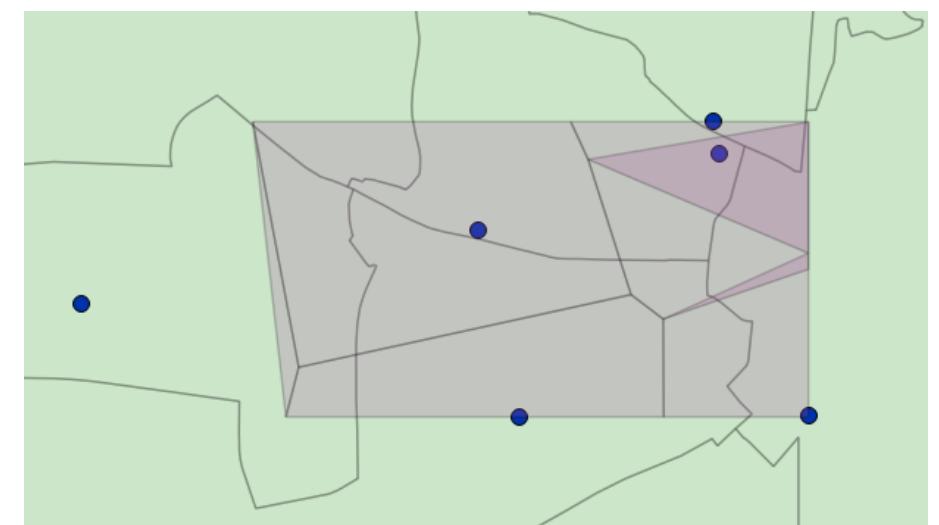
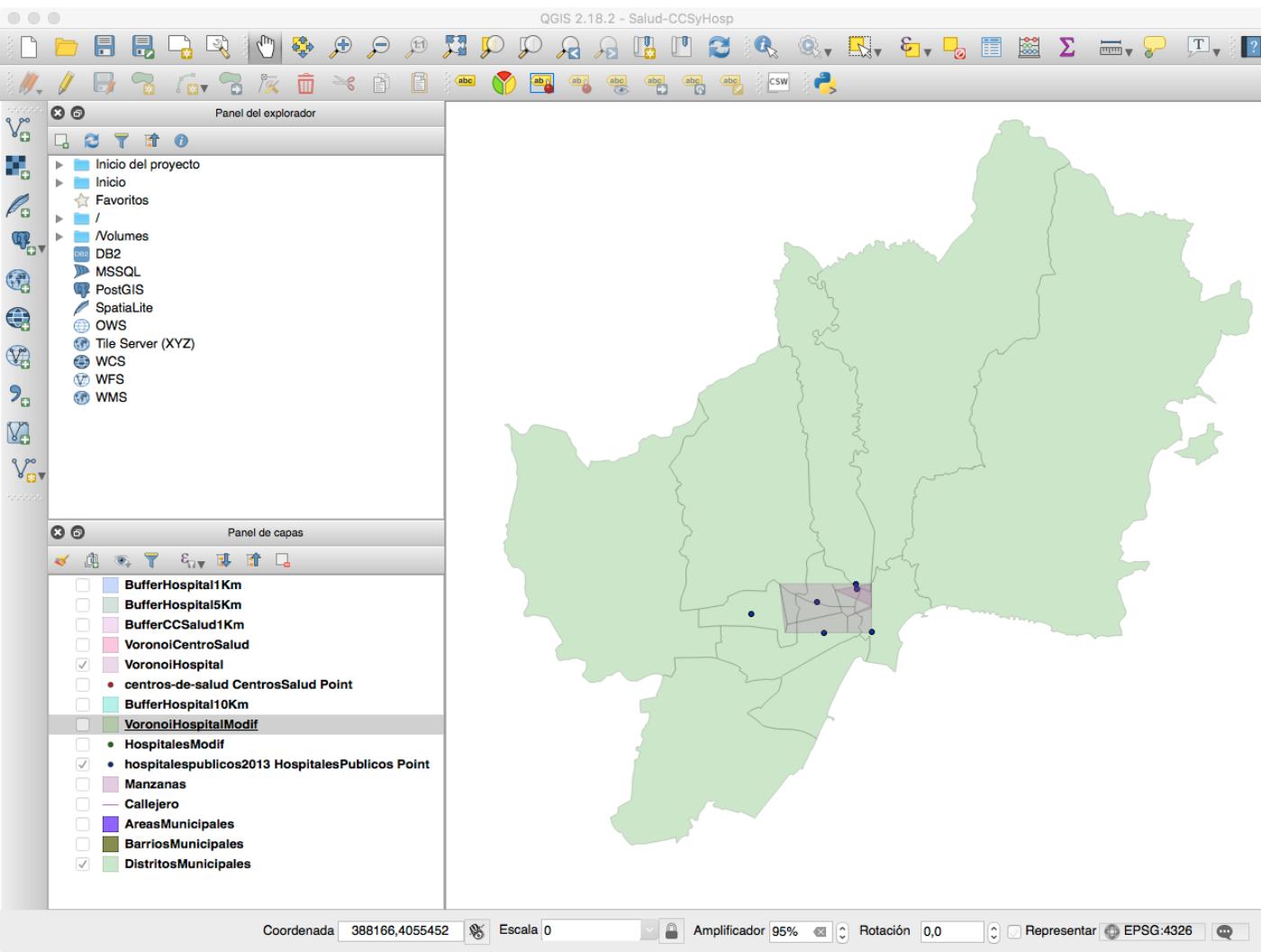
Mapa de Calor



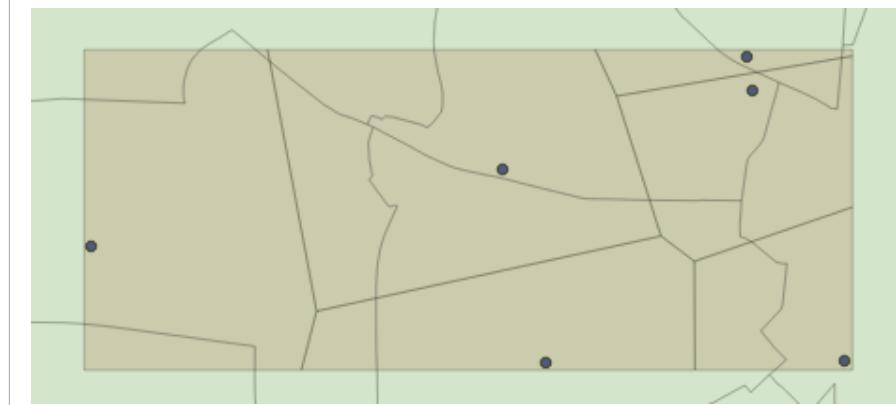
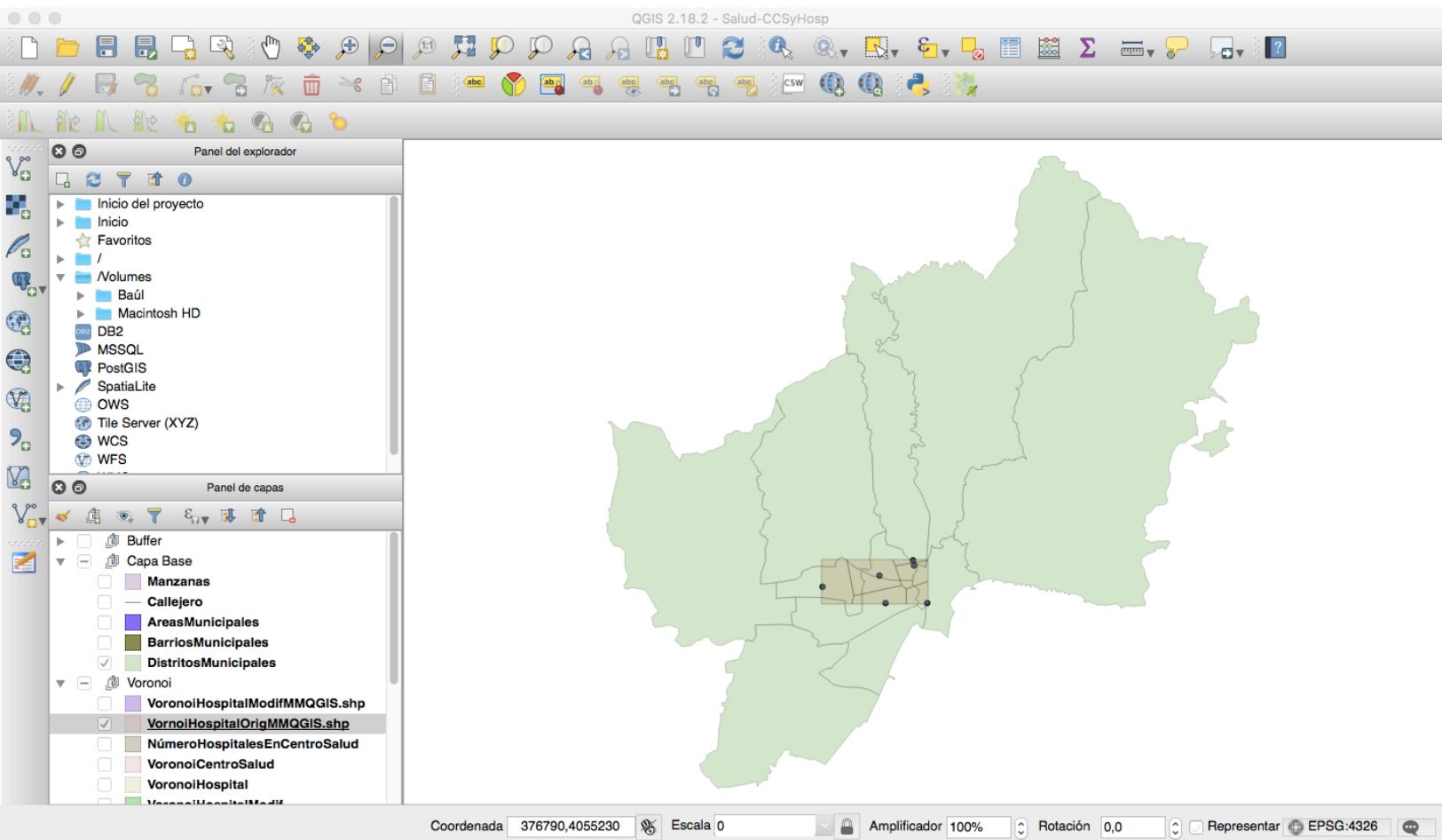
Ejercicio

Hospital y Centros de Salud

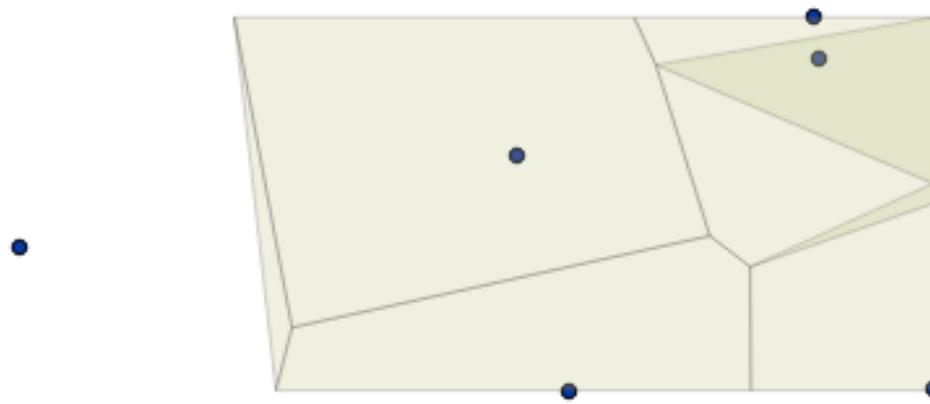
Voronoi Hospital (Herramienta geometría)



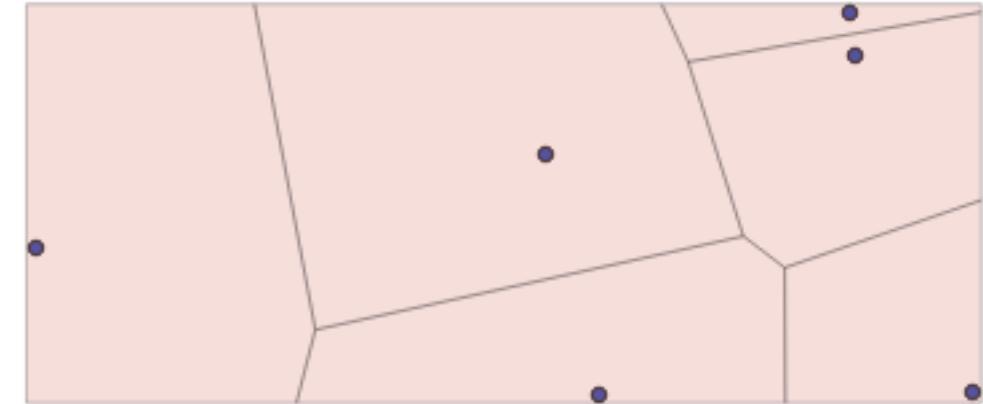
Voronoi Hospital (Complemento MMQGIS)



Voronoi Comparativa

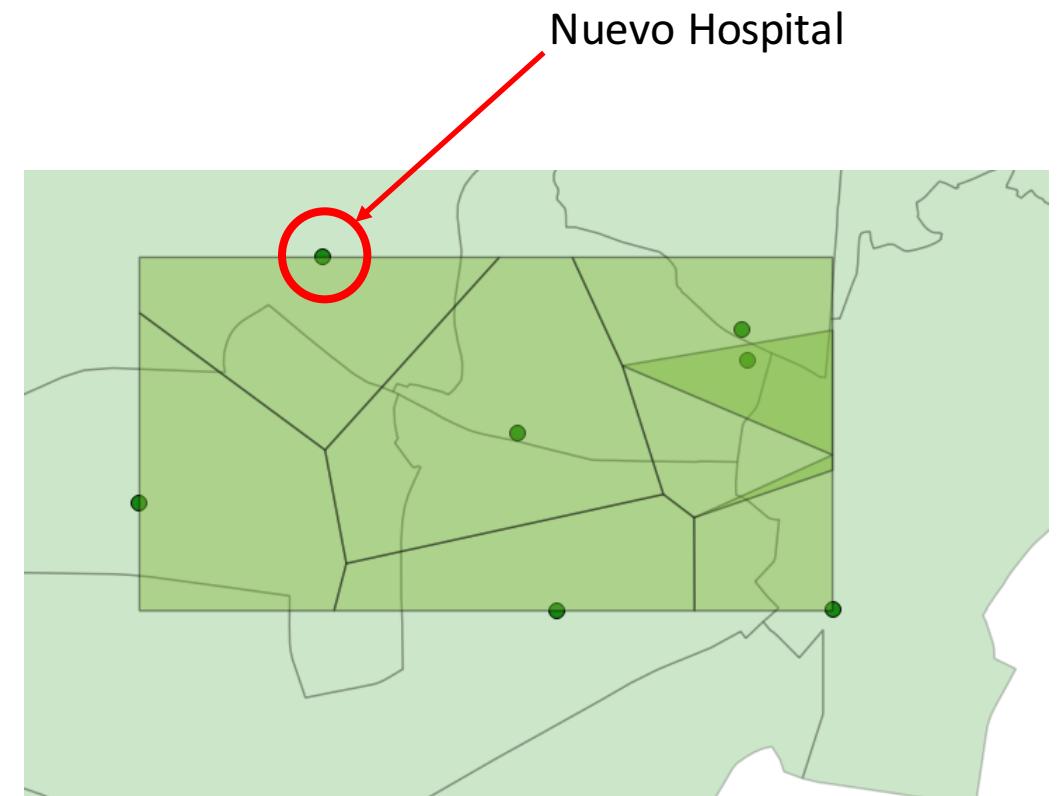
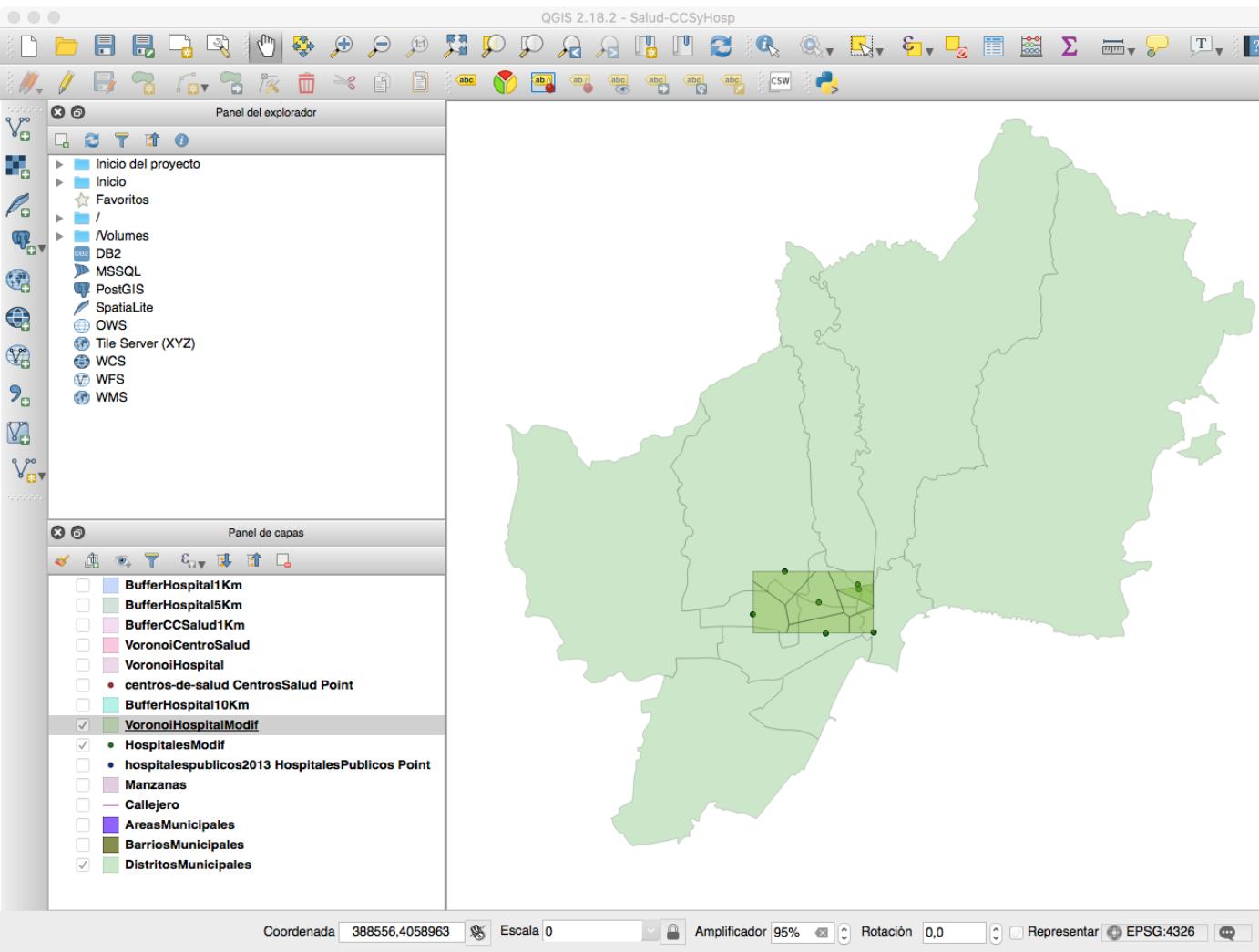


Herramienta geometría

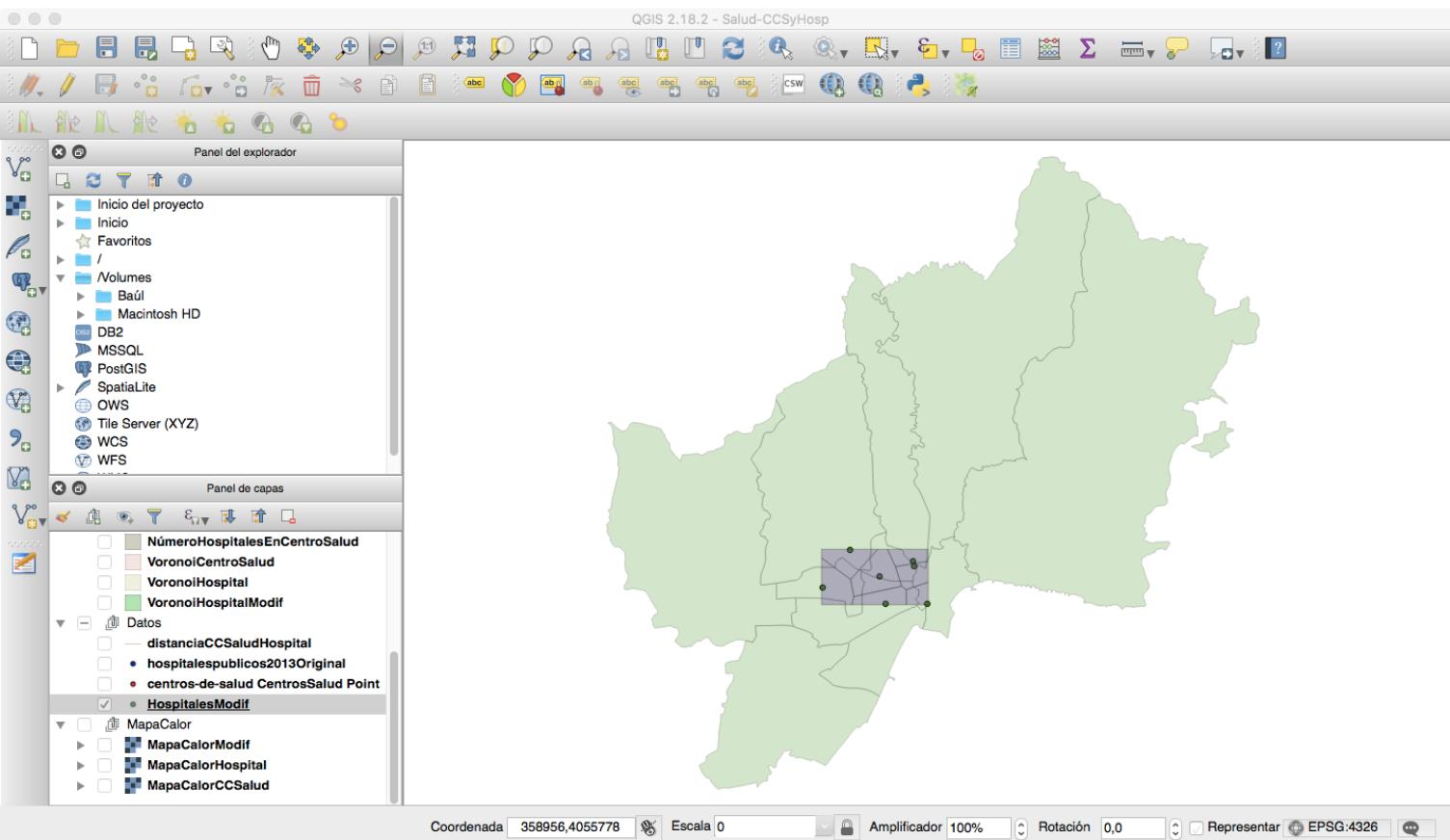


Complemento MMQGIS

Voronoi Hospital Modif (Herramienta geometría)

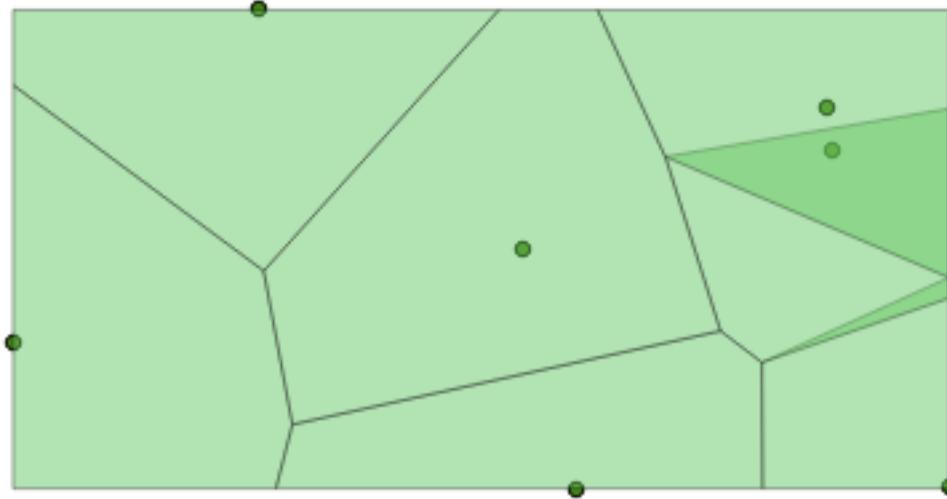


Voronoi Hospital Modif (Complemento MMQGIS)

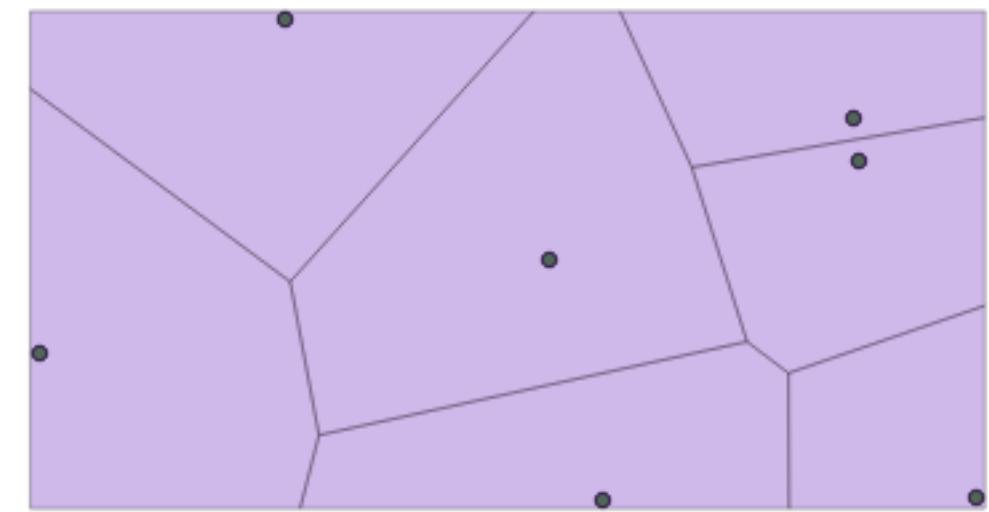


Nuevo Hospital

Voronoi Comparativa

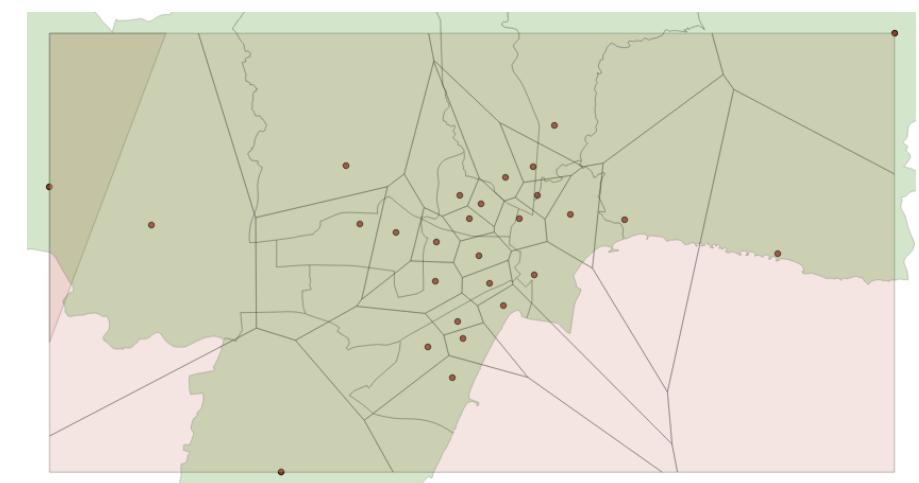
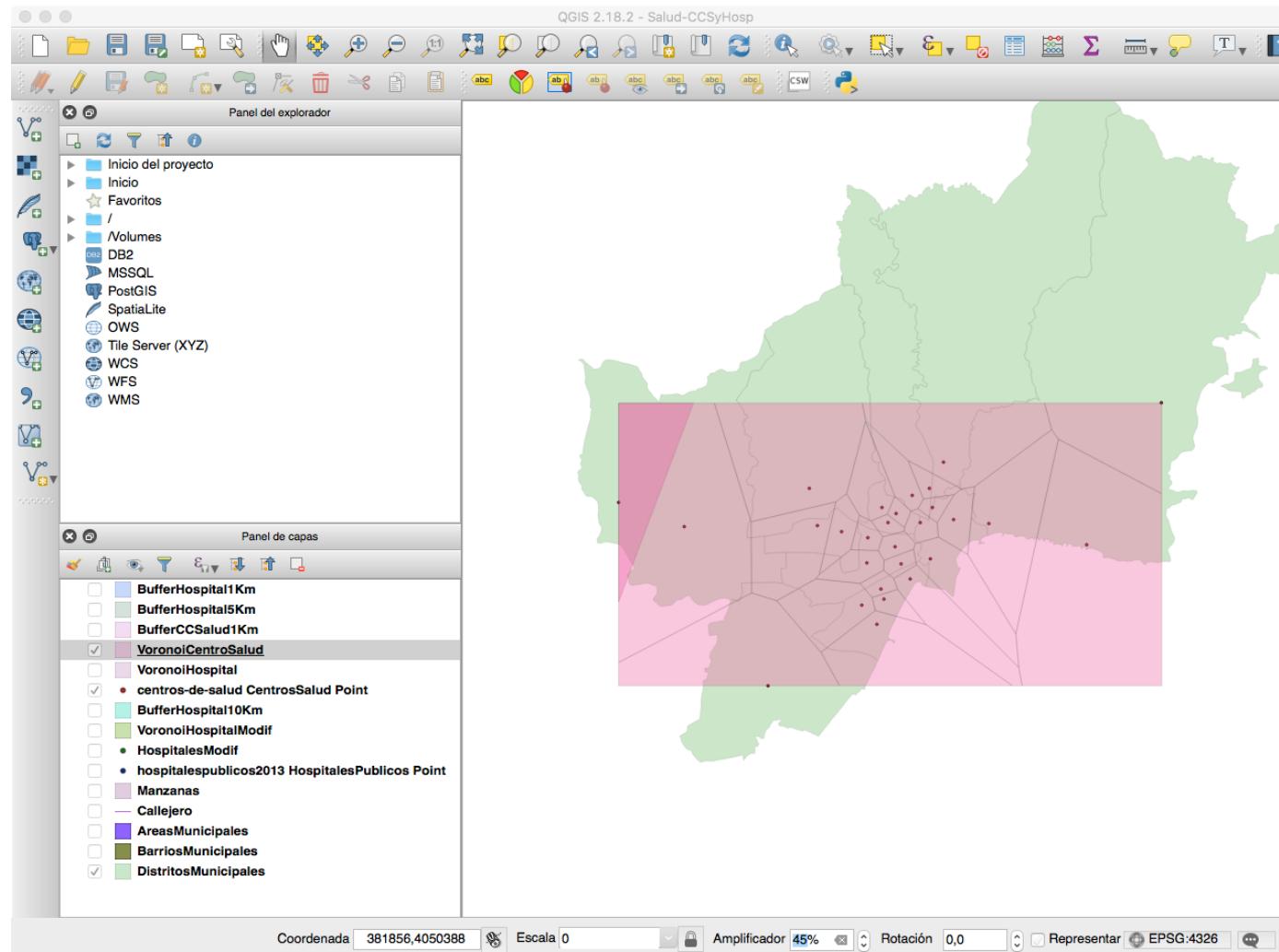


Herramienta geometría

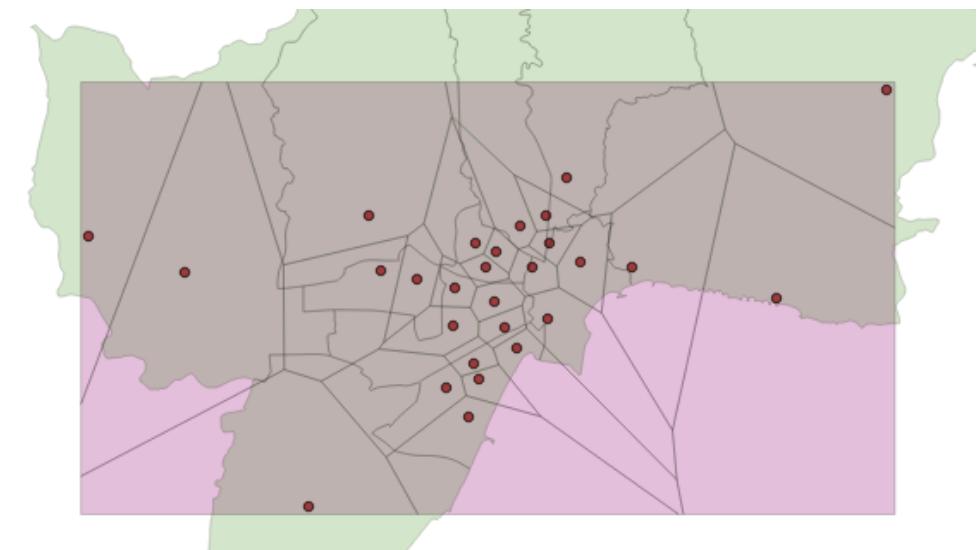
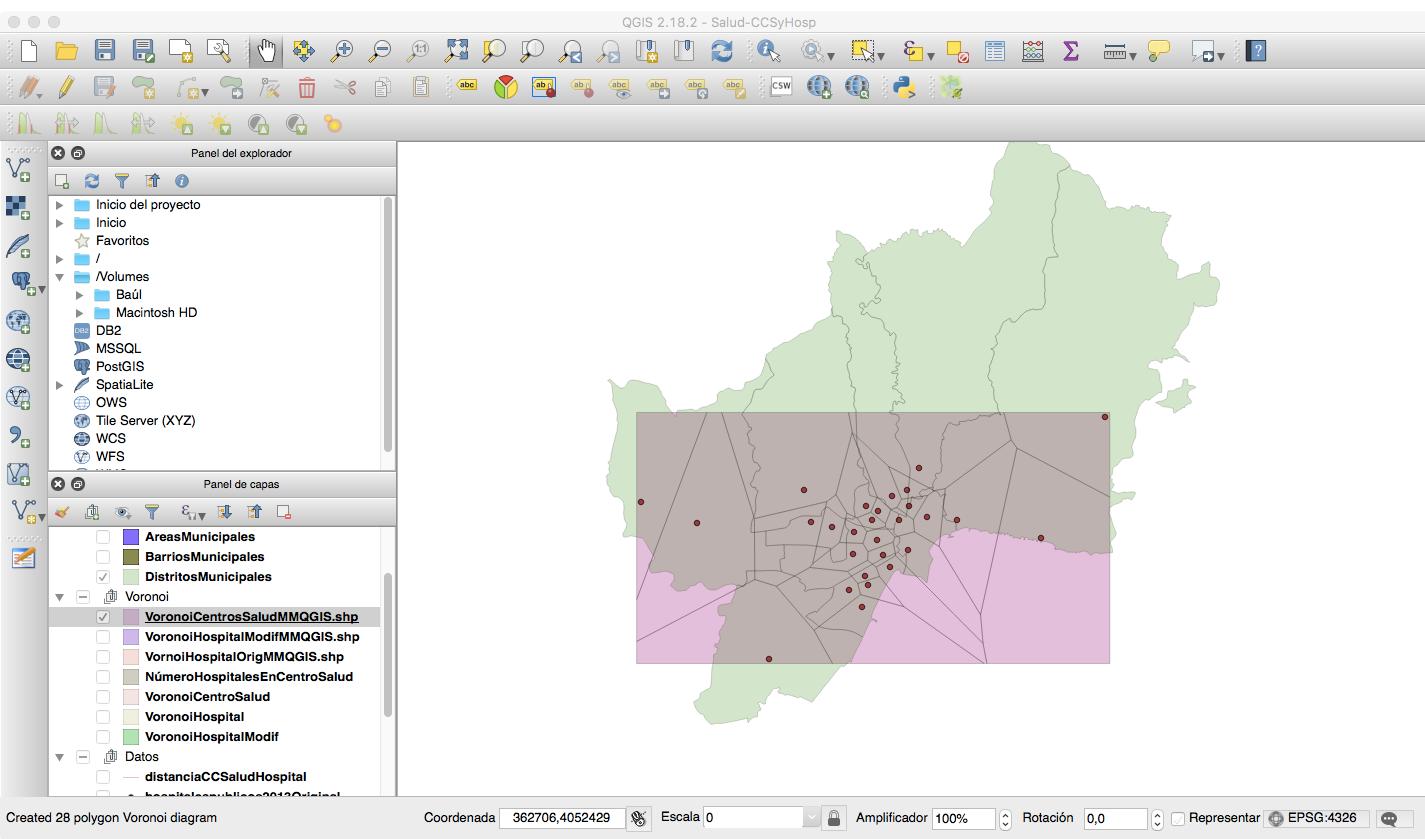


Complemento MMQGIS

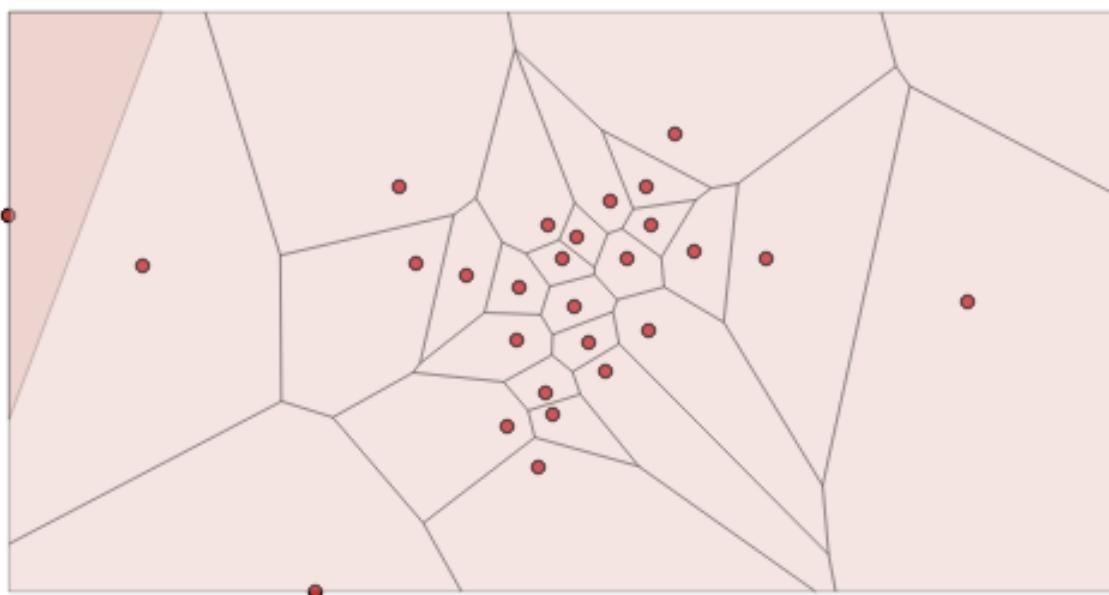
Voronoi Centro de Salud (Herramienta geometría)



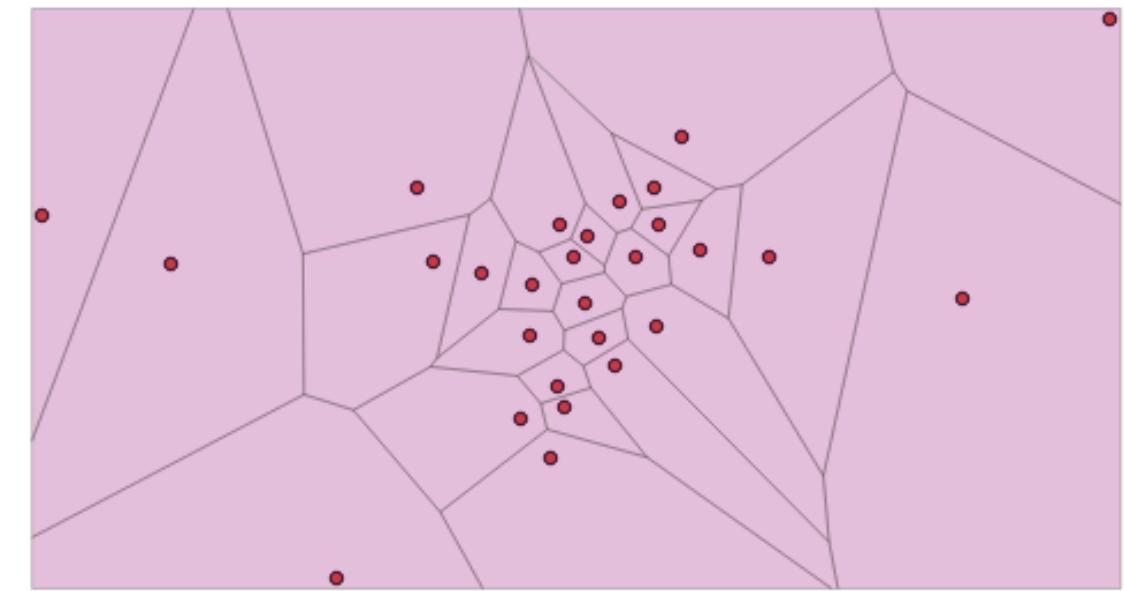
Voronoi Centro de Salud (Complemento MMQGIS)



Voronoi Comparativa

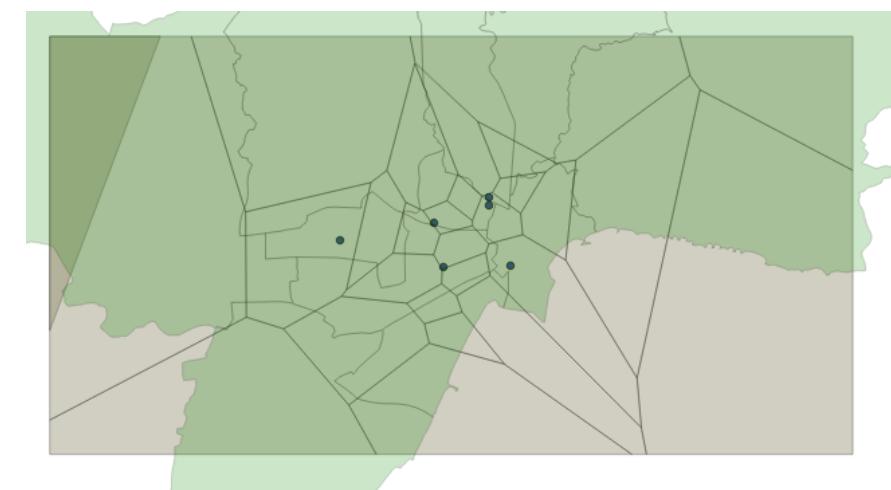
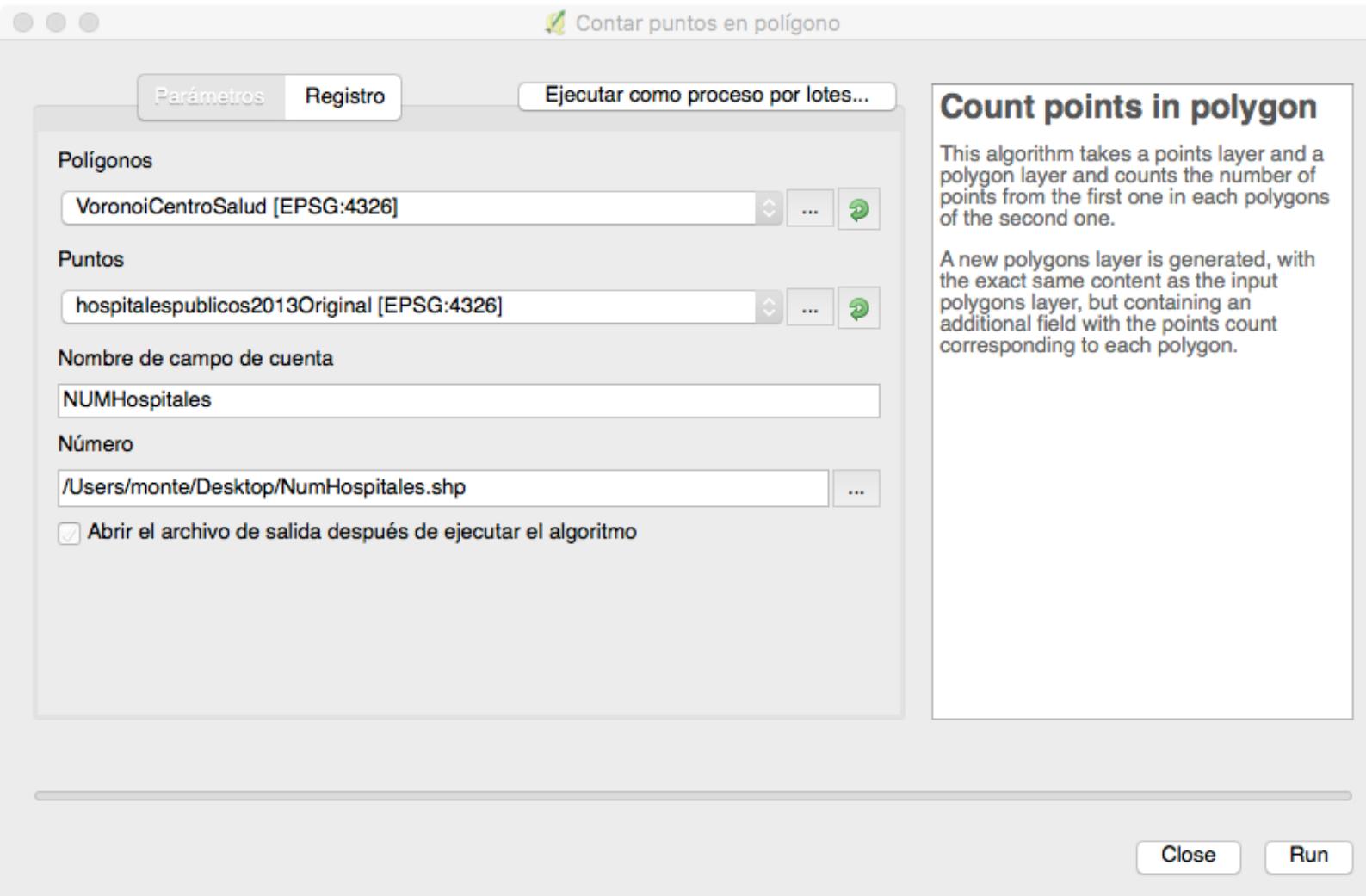


Herramienta geometría

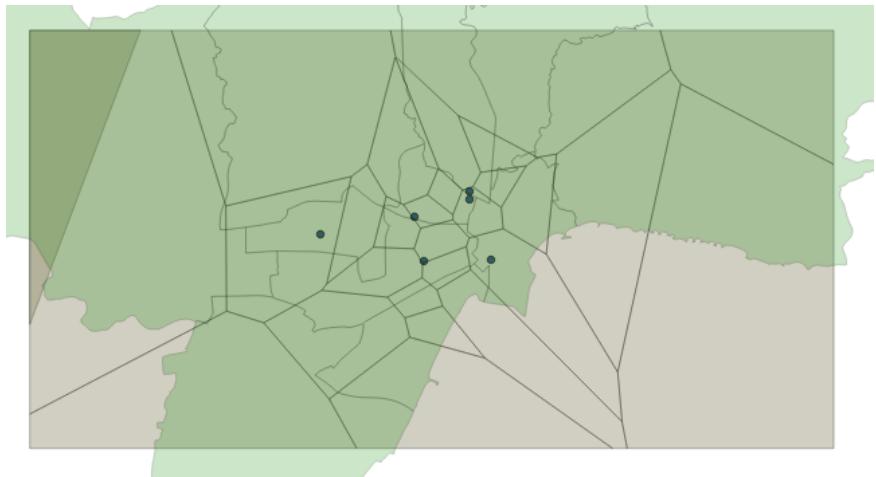


Complemento MMQGIS

Número Hospitales en Voronoi CCS



Número Hospitales en Voronoi CCS

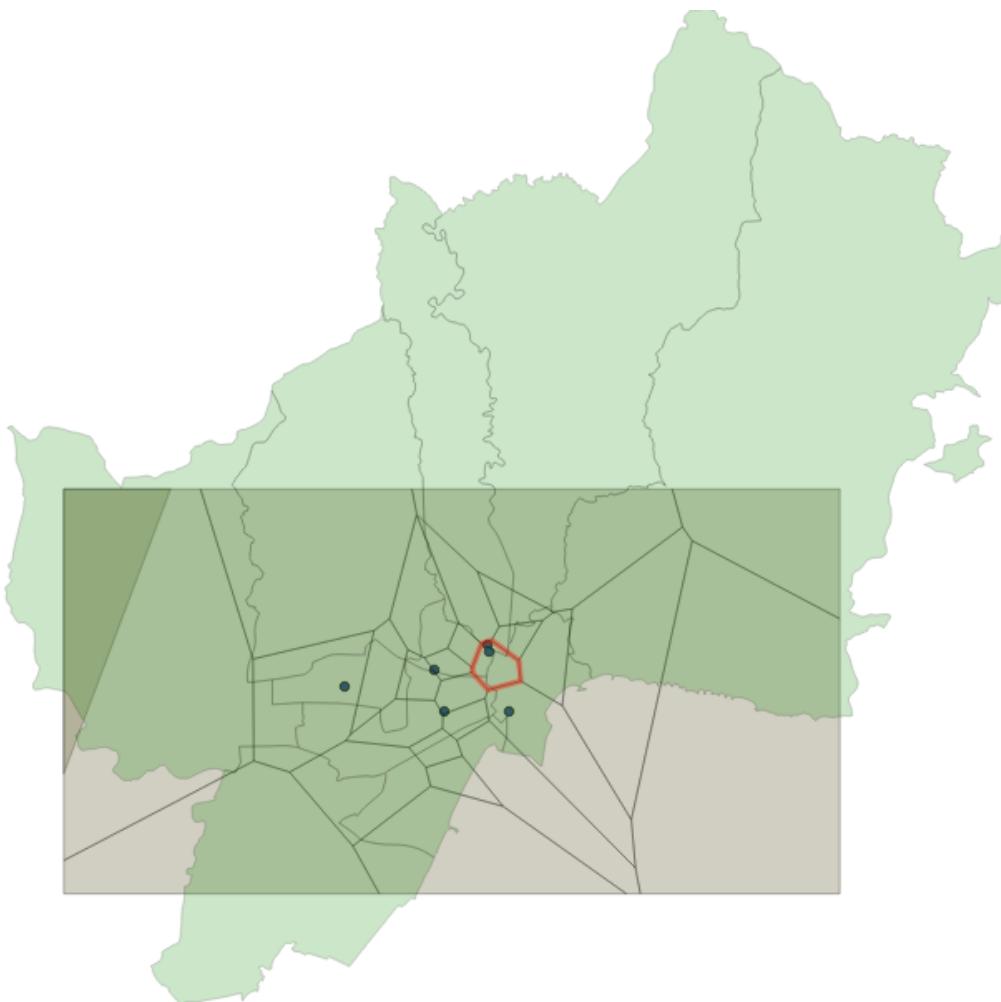


NúmeroHospitalesEnCentroSalud :: Objetos totales: 28, filtrados: 28, seleccionados: 0

	NOMBRE	TIPO	NUMHospita
8	CENTRO DE SALUD LIMONAR	CENTRO DE SALUD	0
9	CONSULTORIO SANTA ROSALA	CONSULTORIO LOCAL	0
10	CENTRO DE SALUD LA LUZ LOS ...	CENTRO DE SALUD	0
11	CENTRO DE SALUD DELICIAS M...	CENTRO DE SALUD	0
12	CENTRO DE SALUD PUERTA BL...	CENTRO DE SALUD	0
13	CENTRO DE SALUD HUELIN	CENTRO DE SALUD	0
14	CENTRO DE SALUD CARLINDA	CENTRO DE SALUD	0
15	CENTRO DE SALUD COLONIA S...	CENTRO DE SALUD	0
16	CONSULTORIO OLAS	CONSULTORIO LOCAL	0
17	CENTRO DE SALUD EL CONSUL	CENTRO DE SALUD	1
18	CENTRO DE SALUD CHURRIANA	CENTRO DE SALUD	0
19	CENTRO DE SALUD EL PALO	CENTRO DE SALUD	0
20	CENTRO DE SALUD NUEVA MLA...	CENTRO DE SALUD	1
21	CENTRO DE SALUD CAMPANILLAS	CENTRO DE SALUD	0
22	CENTRO DE SALUD CRUZ DE H...	CENTRO DE SALUD	0
23	CENTRO DE SALUD PERCHEL	CENTRO DE SALUD	1
24	CENTRO DE SALUD MIRAFLORE...	CENTRO DE SALUD	0
25	CENTRO DE SALUD PUERTO DE...	CENTRO DE SALUD	0
26	CENTRO DE SALUD TRINIDAD J...	CENTRO DE SALUD	2
27	CENTRO DE SALUD VICTORIA	CENTRO DE SALUD	0
28	CENTRO DE SALUD TIRO DE PI...	CENTRO DE SALUD	0

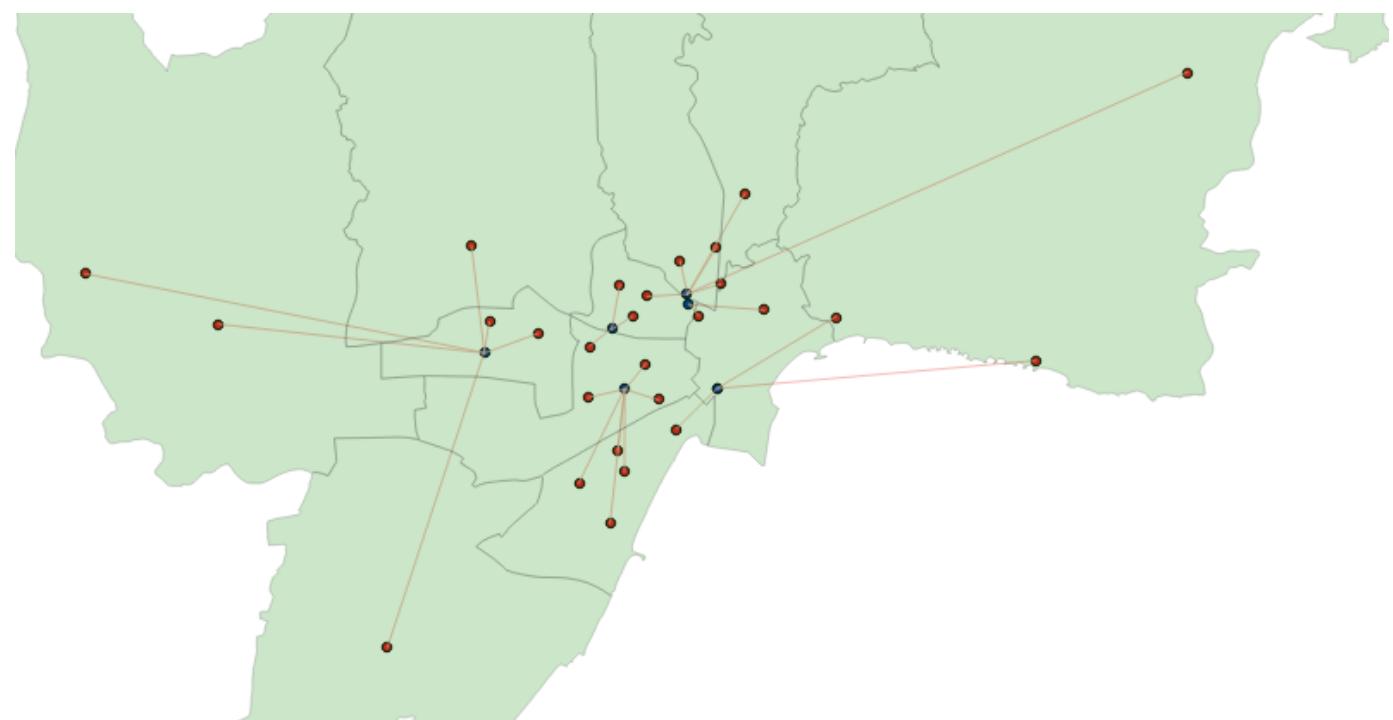
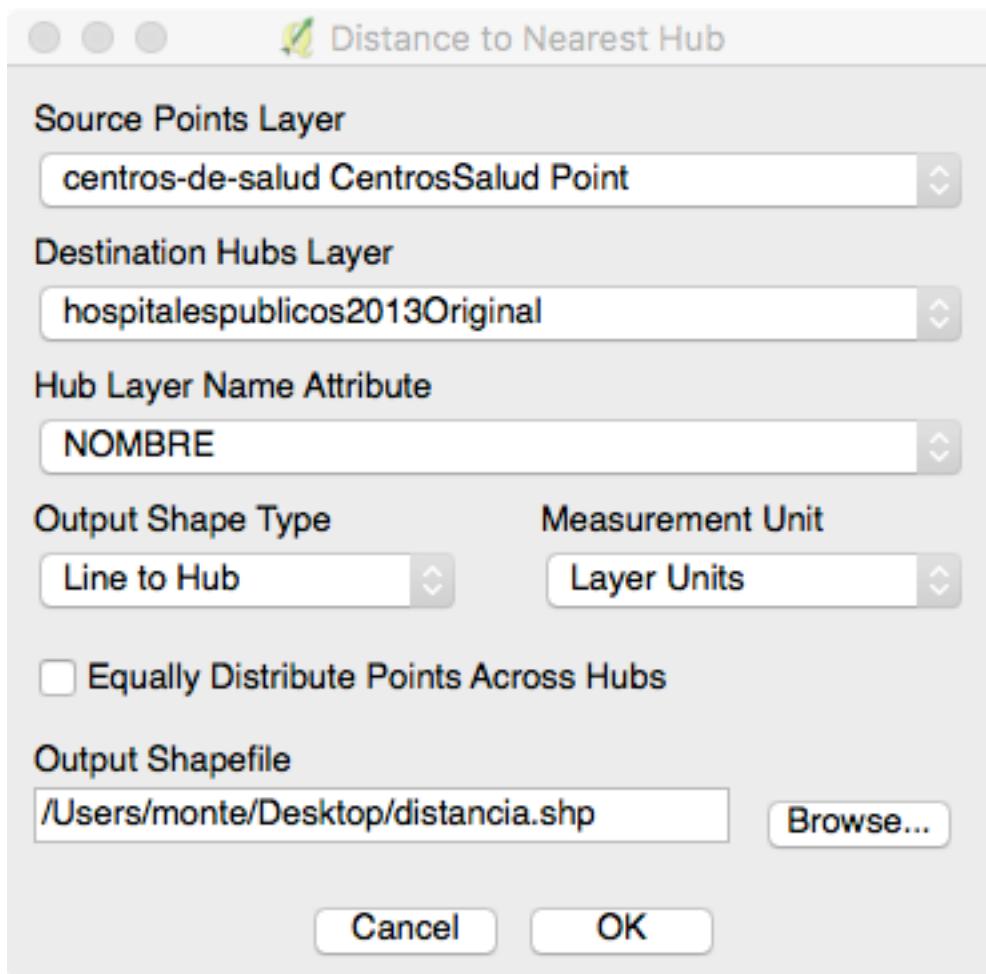
Mostrar todos los objetos espaciales ▾

Número Hospitales en Voronoi CCS

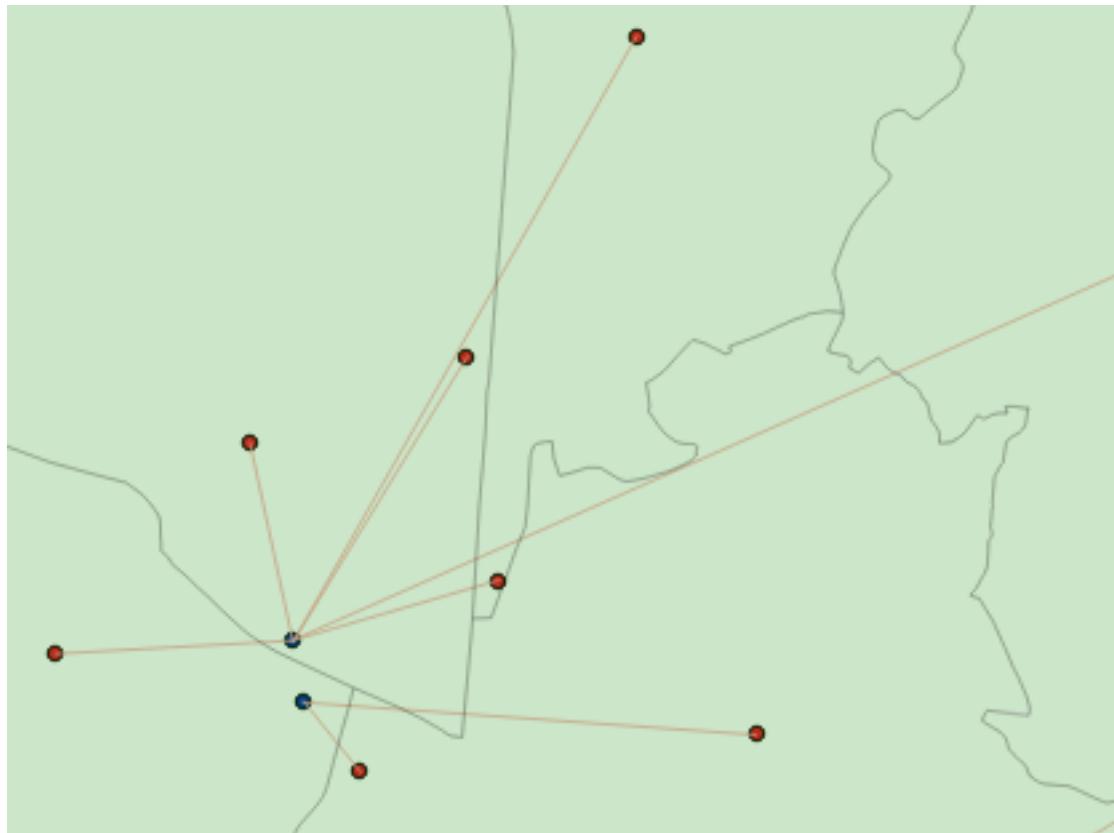


Objeto espacial	Valor
▼ NúmeroHospitalesEnCentroSalud	
▼ NOMBRE	CENTRO DE SALUD TRINIDAD...
▼ (Derivado)	
(coordenada X pinchada)	372517
(coordenada Y pinchada)	4065561
Closest vertex X	373095
Closest vertex Y	4065597
ID del objeto espacial	25
Número del vértice más pró...	6
Perímetro	486.796,205 km
Vértices	8
Área	16.481.174.667,601 km ²
▼ (Acciones)	
Formulario de vista de objetos e...	
NOMBRE	CENTRO DE SALUD TRINIDAD...
TIPO	CENTRO DE SALUD
NUMHospita	2

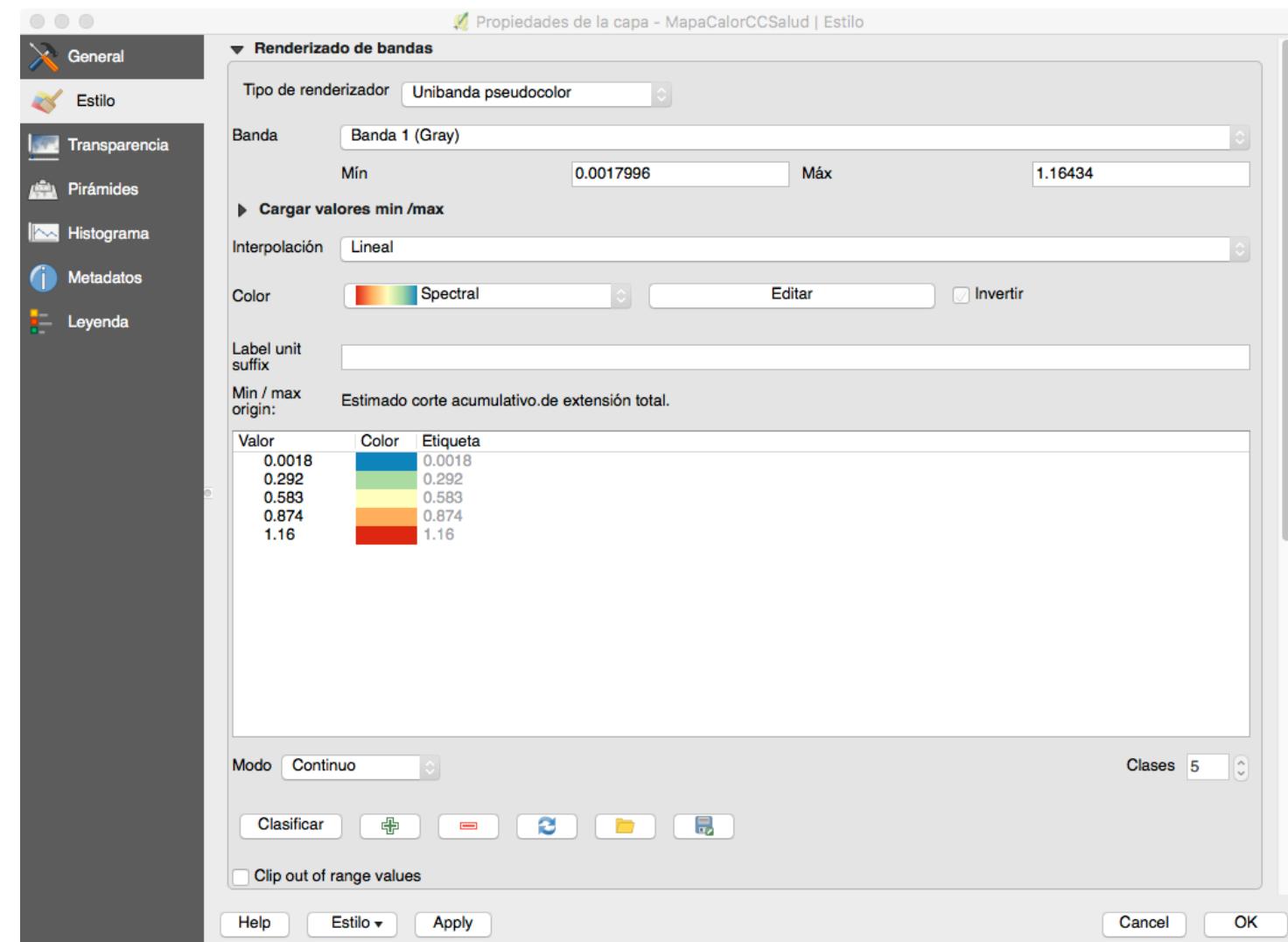
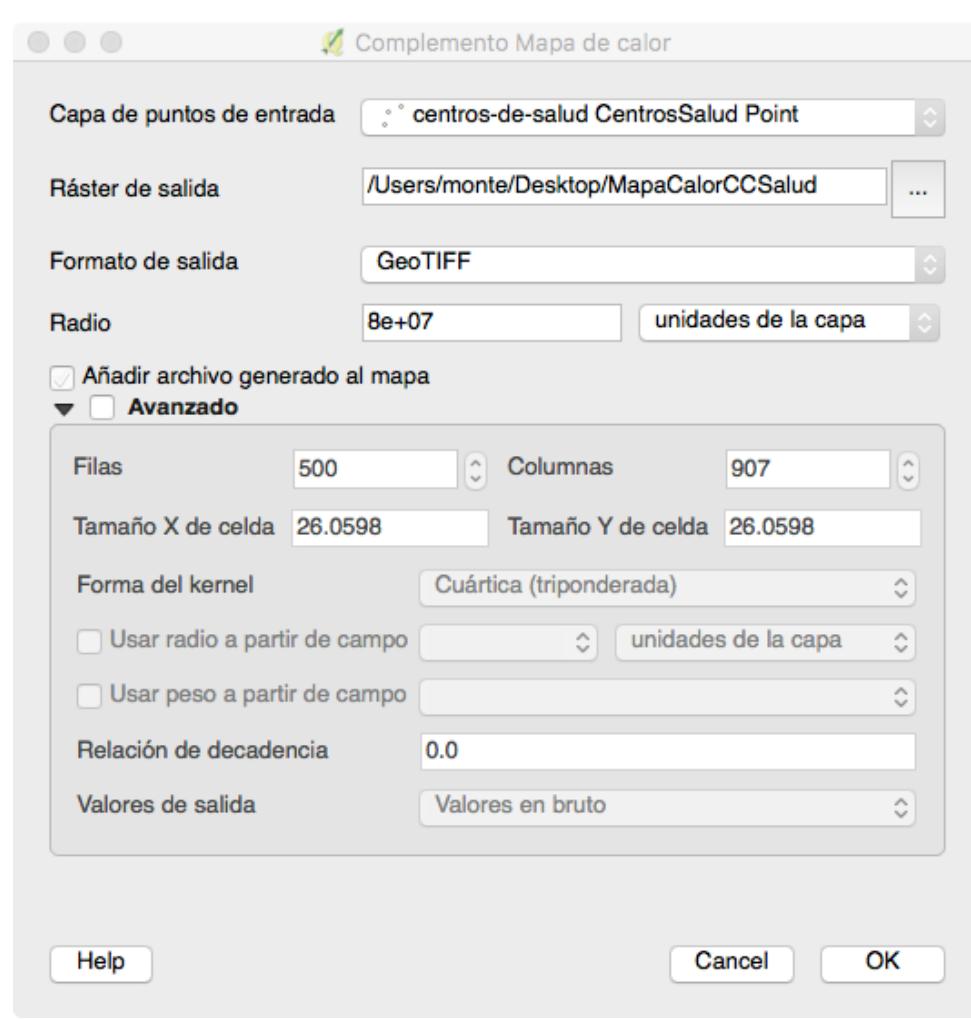
Distancia Puntos (Complemento MMQGIS)



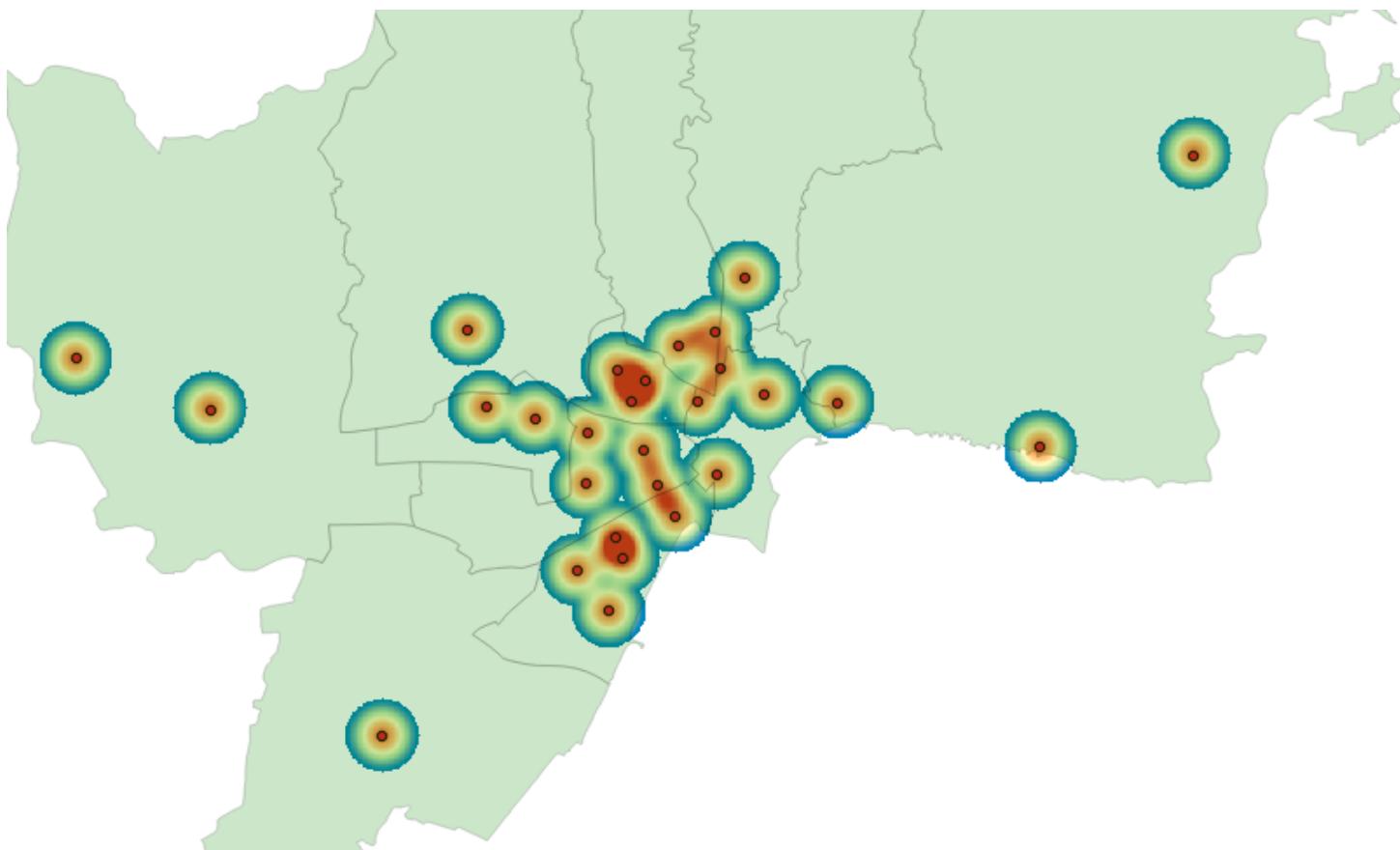
Distancia Puntos (Complemento MMQGIS)



Mapa de Calor CCSalud



Mapa de Calor CCSalud



Mapa de Calor Hospitales y HospitalModif

