

Mercado de Suelo y Valuación de Inmuebles con Fines Catastrales

Elaboración del Mapa de Valor del Suelo Urbano

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Ejercicio - Semivariograma

Programa – Vesper

VESPER es un programa de PC en Windows desarrollado por el Centro Australiano de Agricultura de Precisión (ACPA) para la predicción espacial.

http://sydney.edu.au/agriculture/pal/software/download_vesper.shtml

Formado del Archivo de Datos

Programa – Vesper

Ejemplo: “Muestra_Vesper.txt”

X,Y,Z

657332.74,6827208.30,165.02

657573.66,6827266.91,155.56

657459.30,6827425.02,177.78

657350.28,6827457.03,155.56

657452.44,6827393.40,166.34

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Buscar Archivo de Datos

VESPER ©MMII ACPA

Run Kriging Program Save Control File Register Exit

Files **Kriging** **Variogram**

c: [OS]

Directory :

- C:\
- 022_Quito
- data**

File Name:

- Eventos_Puebla_3.dbf
- Eventos_Puebla_3.xls
- Muestra_Vesper.txt**
- Muestras_mercado.dat
- variogram.txt

Analysis Title

Ejercicio Geoestadística - MIDUVI

Data

Data File

C:\022_Quito\data\Muestra_Vesper.txt ...

No. columns **Select Data**

X column Y column Data column

Missing value

Output

Output directory

C:\Program Files\Vesper ...

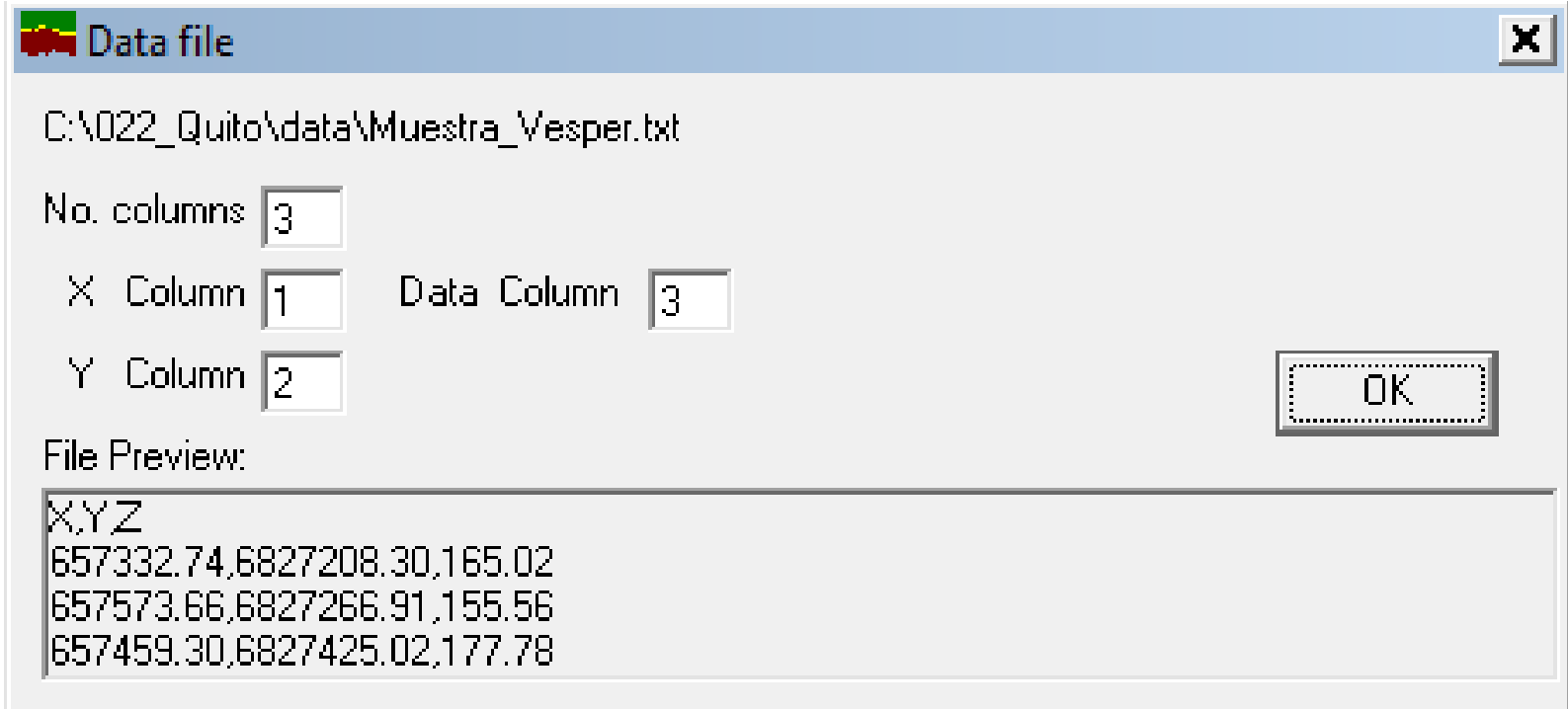
Control File **View Output**

Kriged Output File

Report File **Output File Conversion**

Parameter File

Seleccionar Datos



A dialog box titled "Data file" with a close button (X) in the top right corner. The dialog contains a text field for the file path, three input fields for column selection, an OK button, and a file preview section.

Data file [X]

C:\022_Quito\data\Muestra_Vesper.txt

No. columns



X Column Data Column

Y Column

File Preview:

```
X,Y,Z
657332.74,6827208.30,165.02
657573.66,6827266.91,155.56
657459.30,6827425.02,177.78
```

Seleccionar Carpeta para Salidas

Output	
Output directory	<input type="text" value="C:\022_Quito\data"/>  
Control File	<input type="text" value="control.txt"/>
Kriged Output File	<input type="text" value="kriged.txt"/>
Report File	<input type="text" value="report.txt"/>
Parameter File	<input type="text" value="parameter.txt"/>
<input type="button" value="View Output"/>	
<input type="button" value="Output File Conversion"/>	

Seleccionar Pestaña "Variogram"

The screenshot shows the VESPER software interface with the title bar "VESPER ©MMII ACPA". The top menu bar contains four buttons: "Run Kriging Program", "Save Control File", "Register", and "Exit". Below the menu bar are three tabs: "Files", "Kriging", and "Variogram". The "Variogram" tab is selected and highlighted with a red circle containing the number "1".

Inside the "Variogram" tab, there are three main sections:

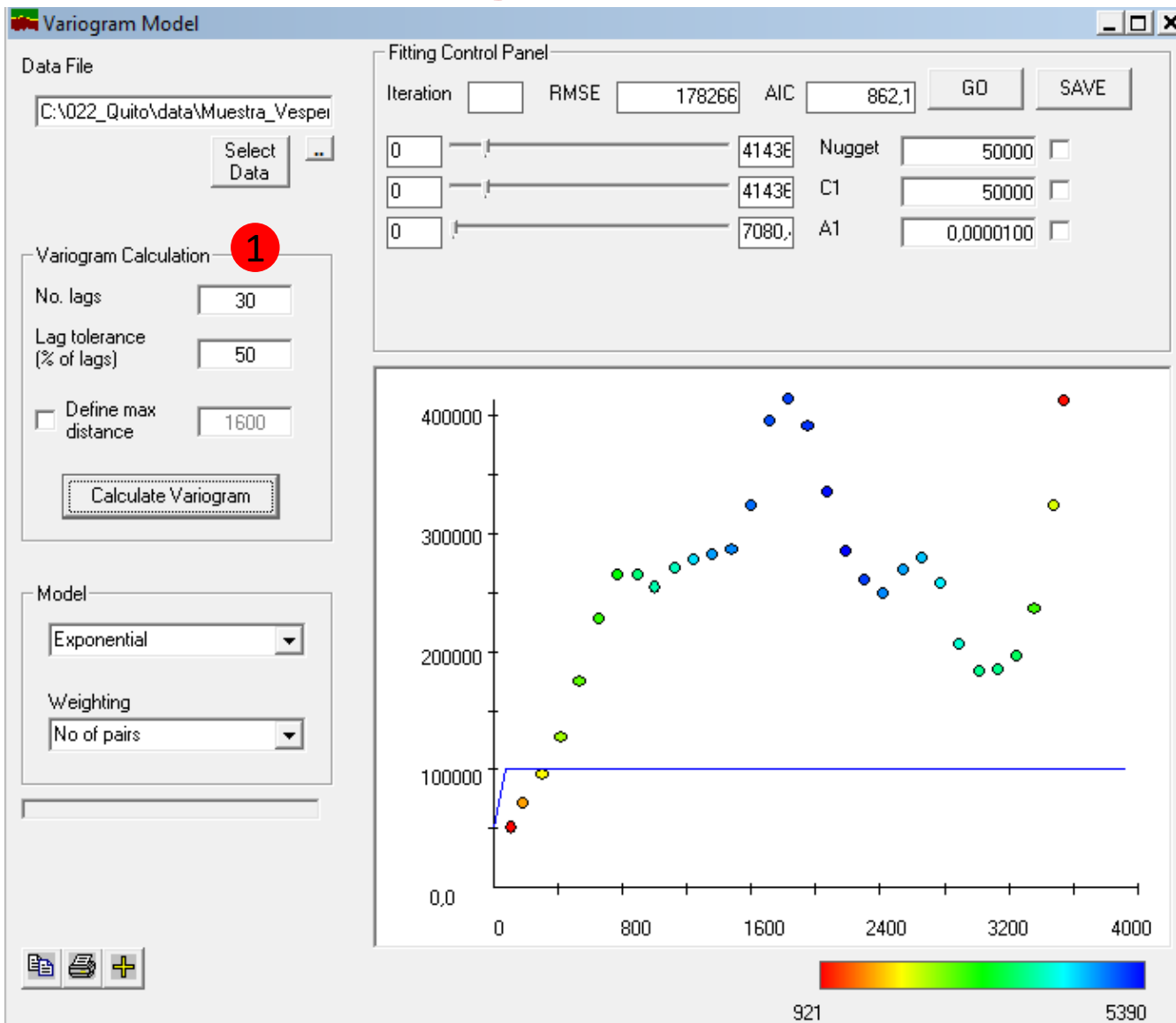
- Variogram calculation:** Contains two radio buttons: "Local variogram" and "Global variogram". The "Global variogram" option is selected.
- Variogram model:** A dropdown menu showing "Exponential".
- Weighting:** A dropdown menu showing "No. of pairs".
- Graphics:** Contains two checked checkboxes: "Plot variogram" and "Plot map of interpolation".
- Fit Variogram:** A button located below the "Variogram calculation" section, highlighted with a red circle containing the number "2".
- Variogram computation:** A section containing:
 - A radio button for "Compute Variogram" which is selected.
 - Fields for "No. of lags" (30), "Lag tolerance (%)" (50), and a checkbox for "define max distance" (100).
 - A radio button for "Define parameters" which is not selected.
 - Fields for parameters: C0 (0), C1 (1), A1 (10), Alfa (1), C2 (1), and A2 (1).

Crear Semivariograma Experimental

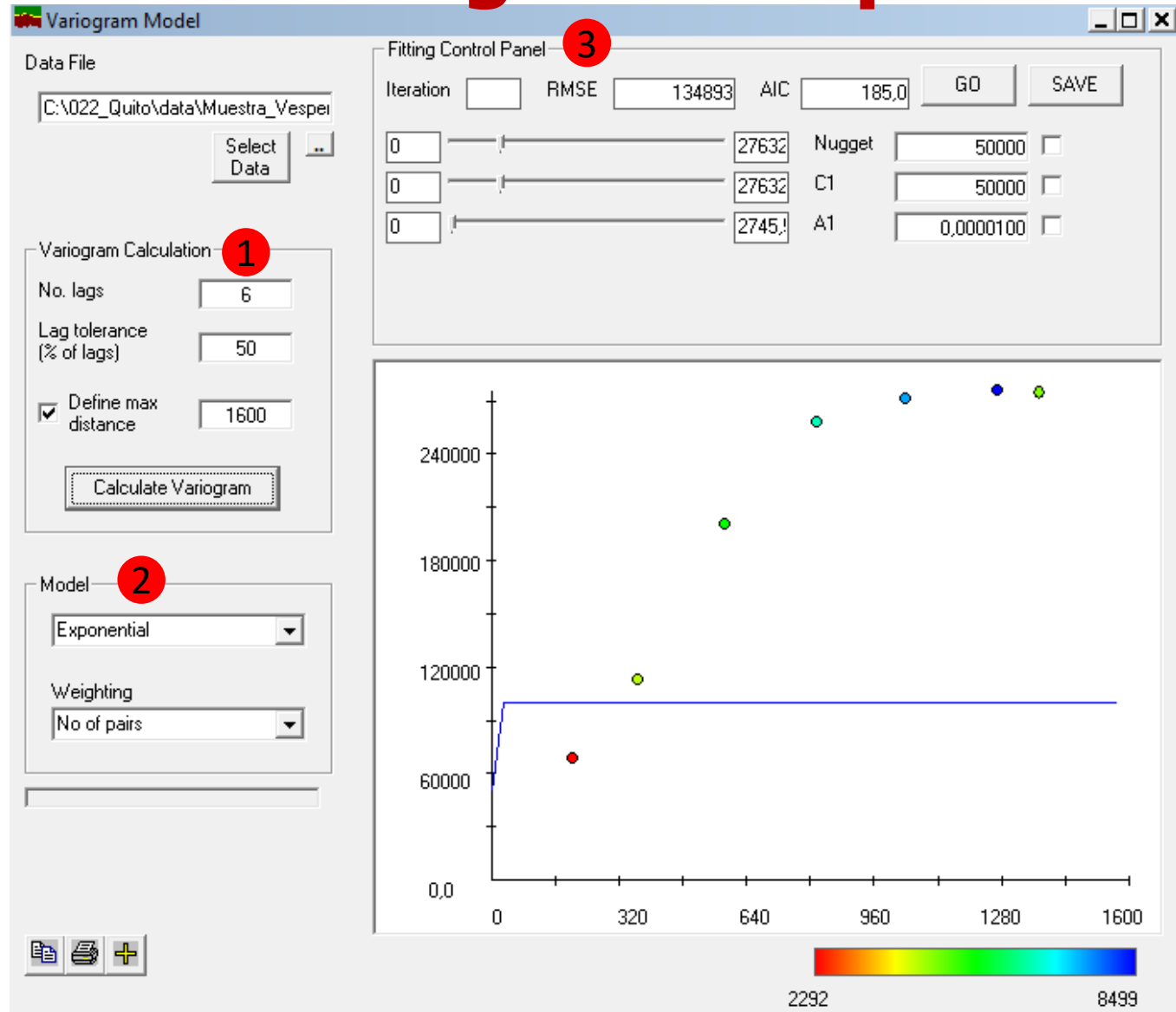
The screenshot shows the 'Variogram Model' software window. It is divided into several sections:

- Data File:** Contains a text box with the path 'C:\022_Quito\data\Muestra_Vesperi' and a 'Select Data' button.
- Variogram Calculation:** Contains input fields for 'No. lags' (30), 'Lag tolerance (% of lags)' (50), and a checkbox for 'Define max distance' (checked) with a value of 1600. A 'Calculate Variogram' button is at the bottom, marked with a red circle and the number 1.
- Fitting Control Panel:** Contains fields for 'Iteration', 'RMSE', and 'AIC', each with a 'GO' button. Below these are three rows of input fields for 'Nugget', 'C1', and 'A1', each with a checkbox.

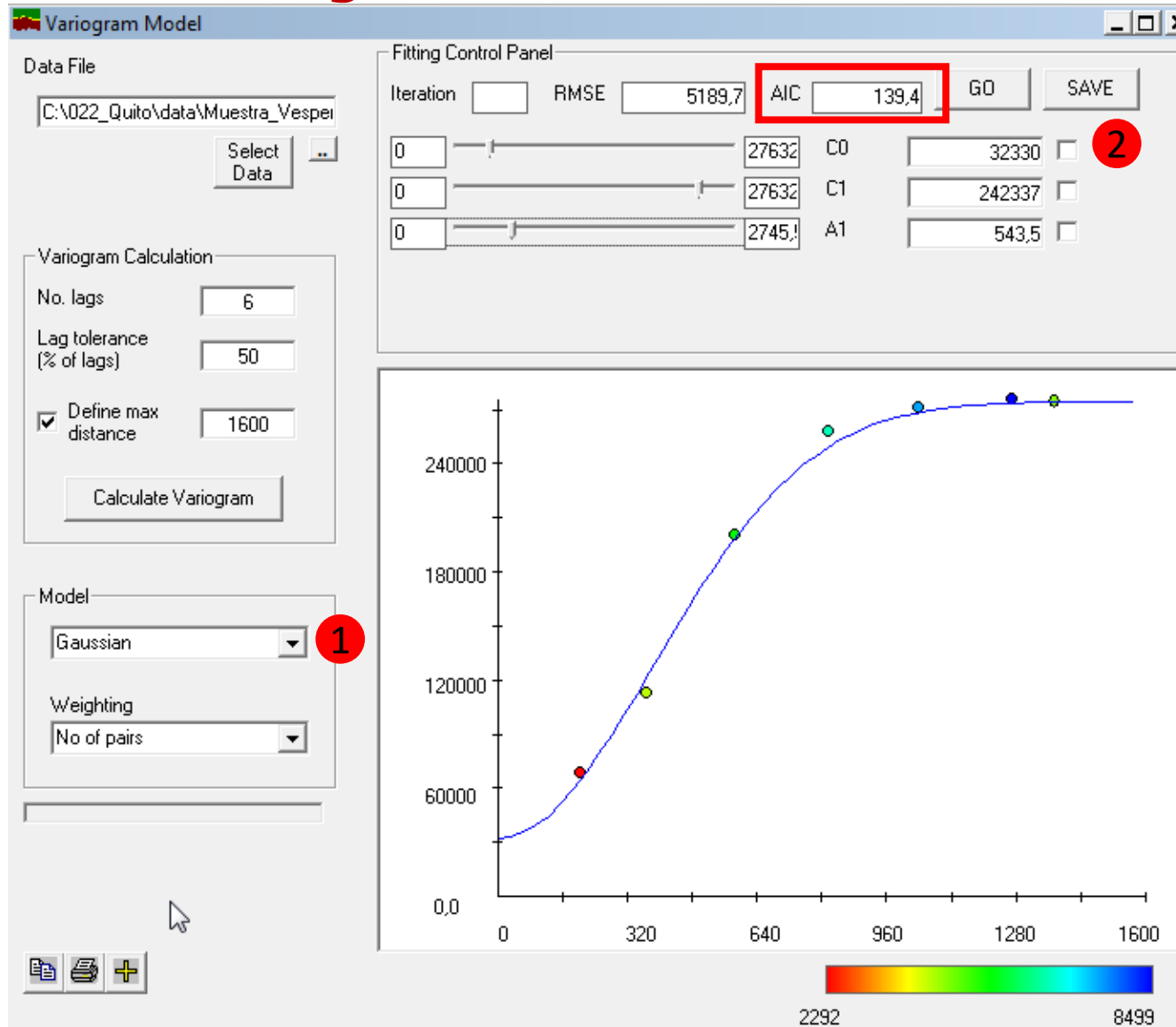
Crear Semivariograma Experimental



Crear Semivariograma Experimental



Ajuste del Modelo Teórico



Efecto Pepita -C0

32330

Contribución – C1

242337

Alcance – A1

543,5

Ejercicio - Krigeage

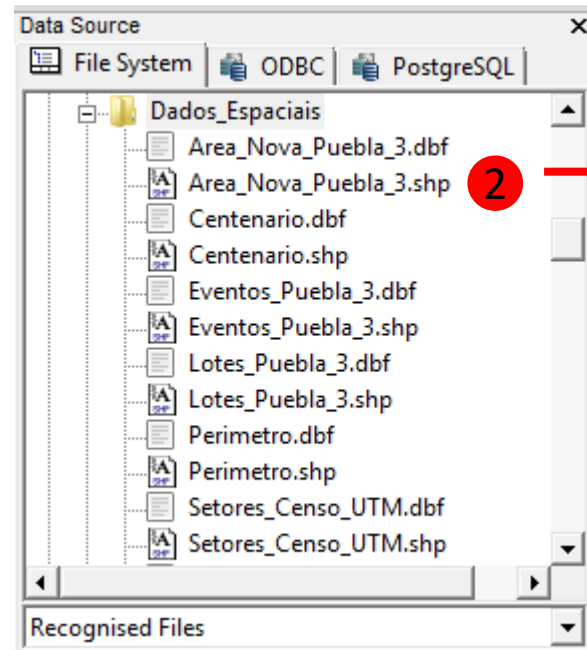
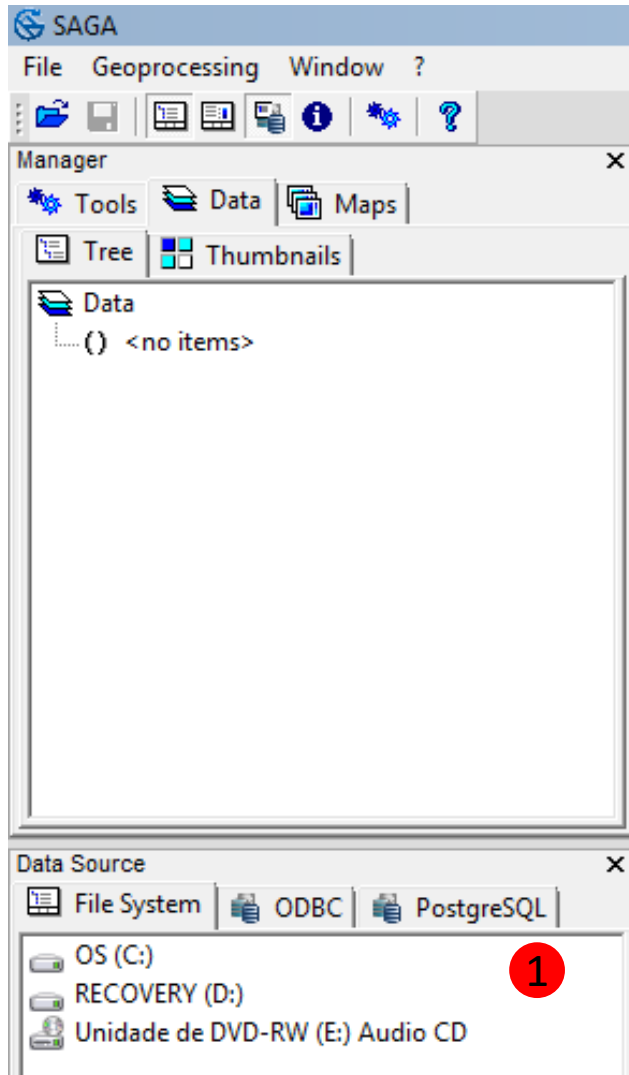
Programa – SAGA

SAGA - System for Automated Geoscientific Analyses

<http://www.saga-gis.org>

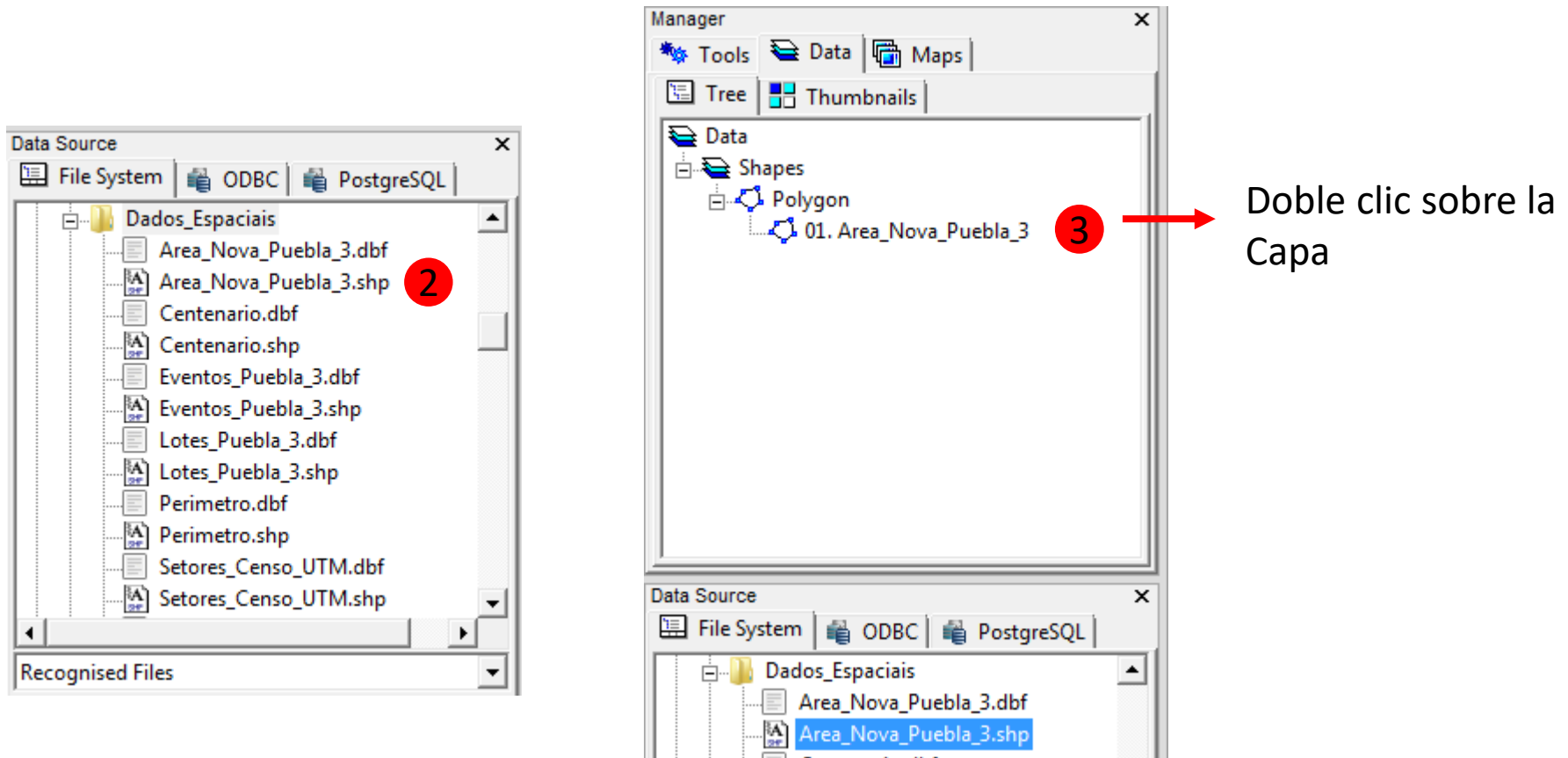
Bajar la versión 2.1.2

Buscar Archivo de Datos

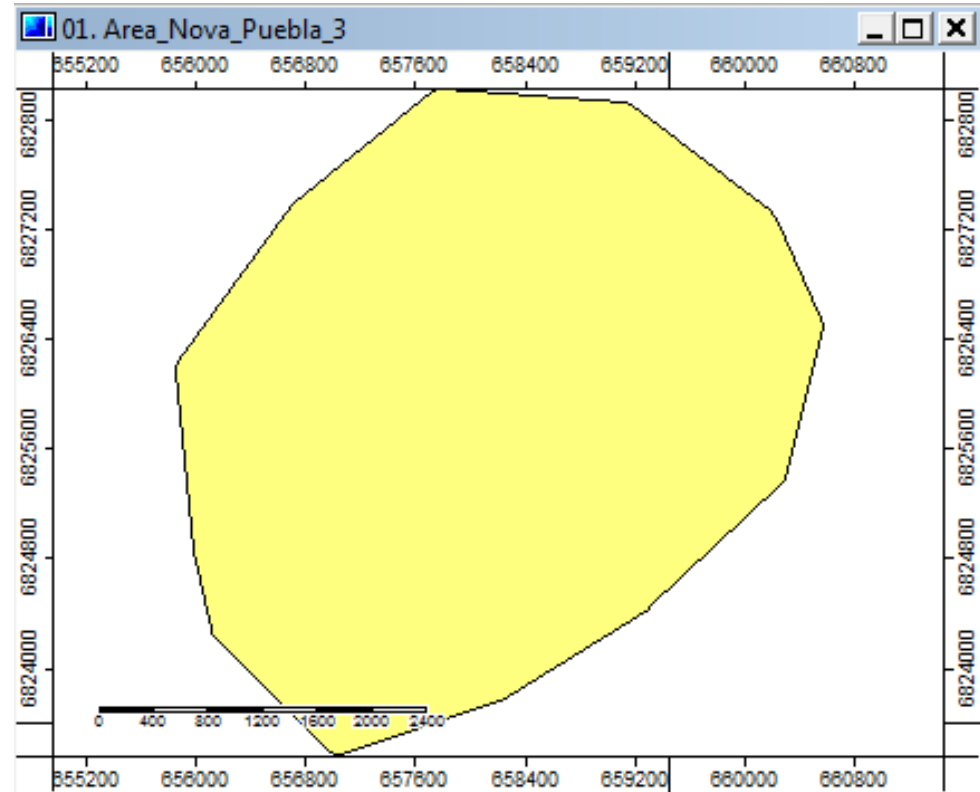
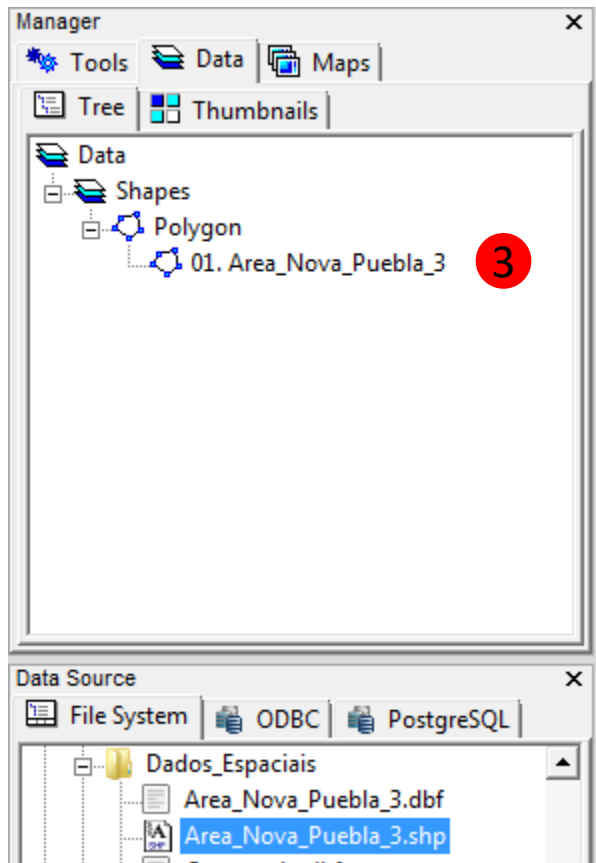


Doble clic sobre el Archivo - SHP

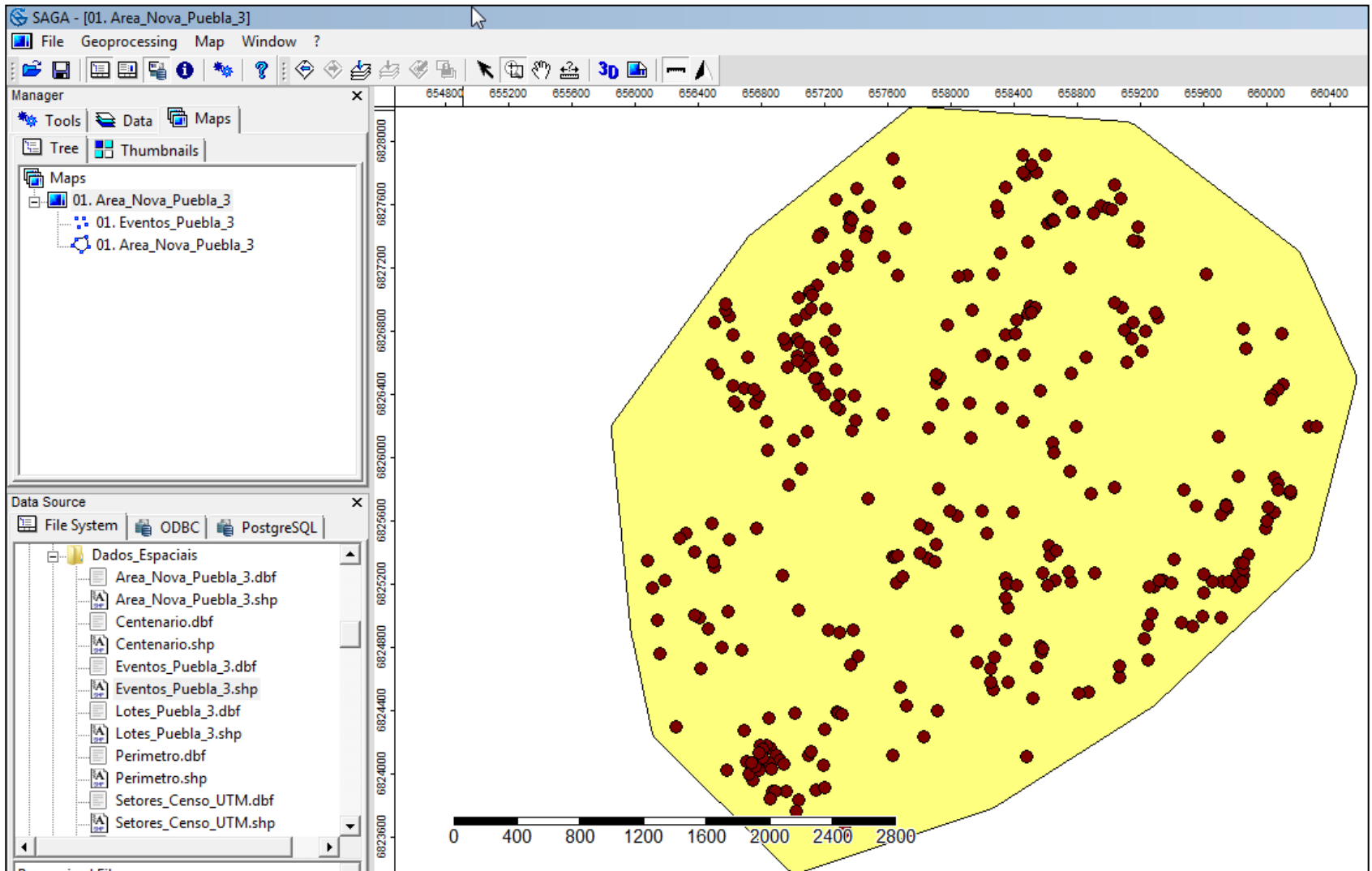
Visualizar Capa



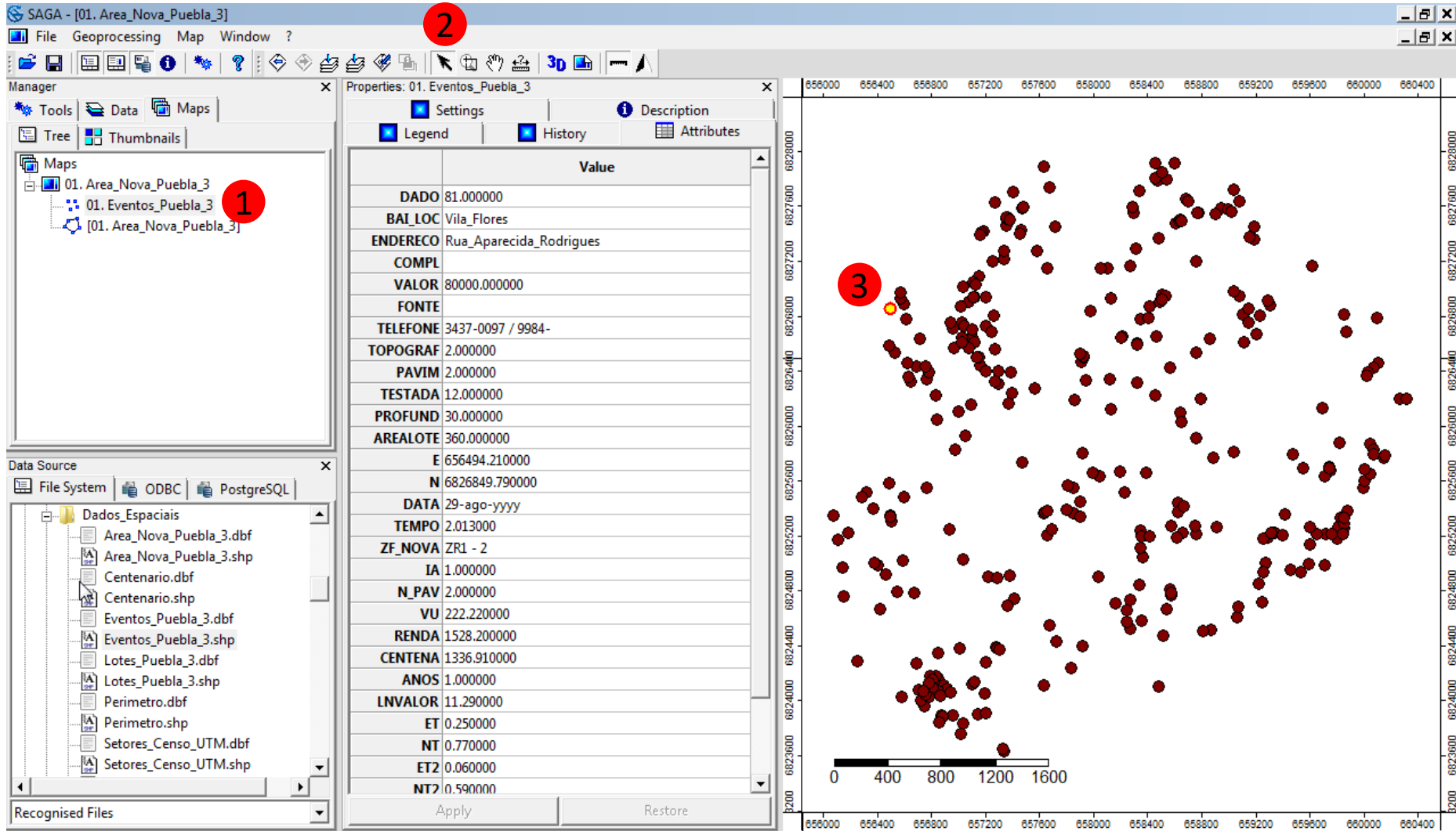
Visualizar Capa



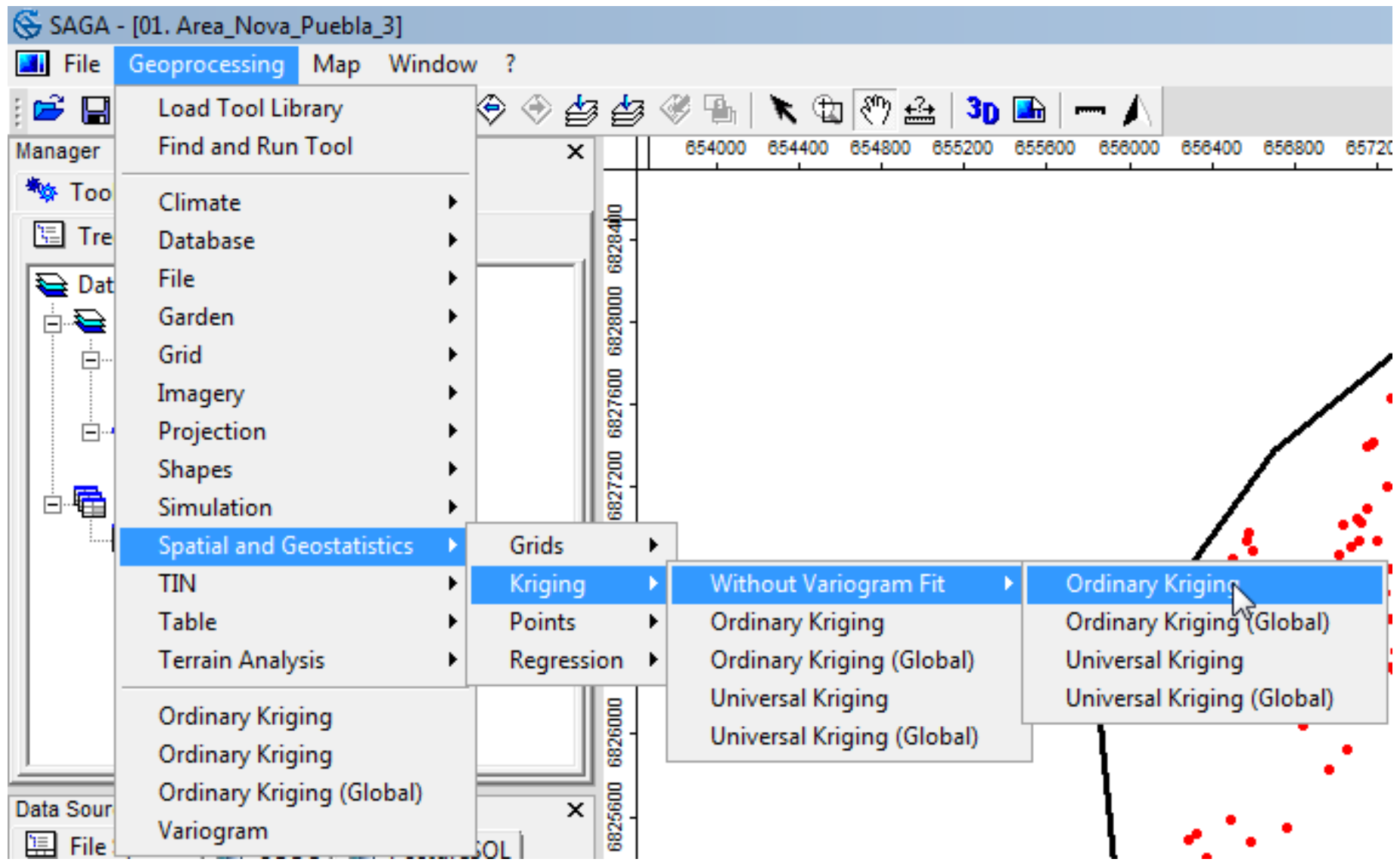
Visualizar Capa



Generar Superficie



Generar Superficie



Generar Superficie

Ordinary Kriging

Data Objects	
Shapes	
>> Points	01. Eventos_Puebla_3
Attribute	VU
Options	
Create Variance Grid	<input checked="" type="checkbox"/>
Target Grid	user defined
Variogram Model	Gaussian Model
Block Kriging	<input type="checkbox"/>
Block Size	100
Logarithmic Transformation	<input type="checkbox"/>
Nugget	32330
Sill	242337
Range	543.5
Additional Parameters	
Linear Regression	1
Exponential Regression	0.1
Power Function - A	1
Power Function - B	0.5
Maximum Search Radius (map units)	1600
Min./Max. Number of m_Points	4; 20

Okay

Cancel

Load

Save

Defaults

Generar Superfície

Ordinary Kriging ✕

<input type="checkbox"/> Options	
Grid Size	20
<input type="checkbox"/> Fit Extent	<input type="checkbox"/>
<input type="checkbox"/> X-Extent	655600; 661000
Minimum	655600
Maximum	661000
<input type="checkbox"/> Y-Extent	6823000; 6829000
Minimum	6823000
Maximum	6829000

Okay

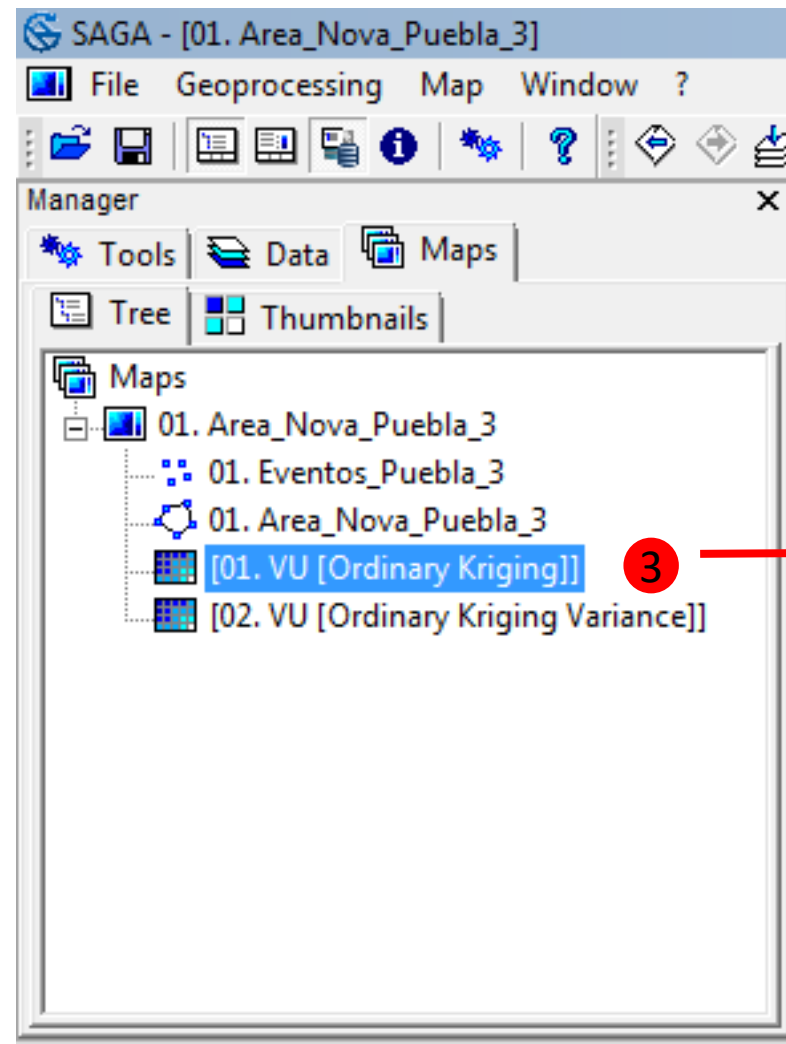
Cancel

Load

Save

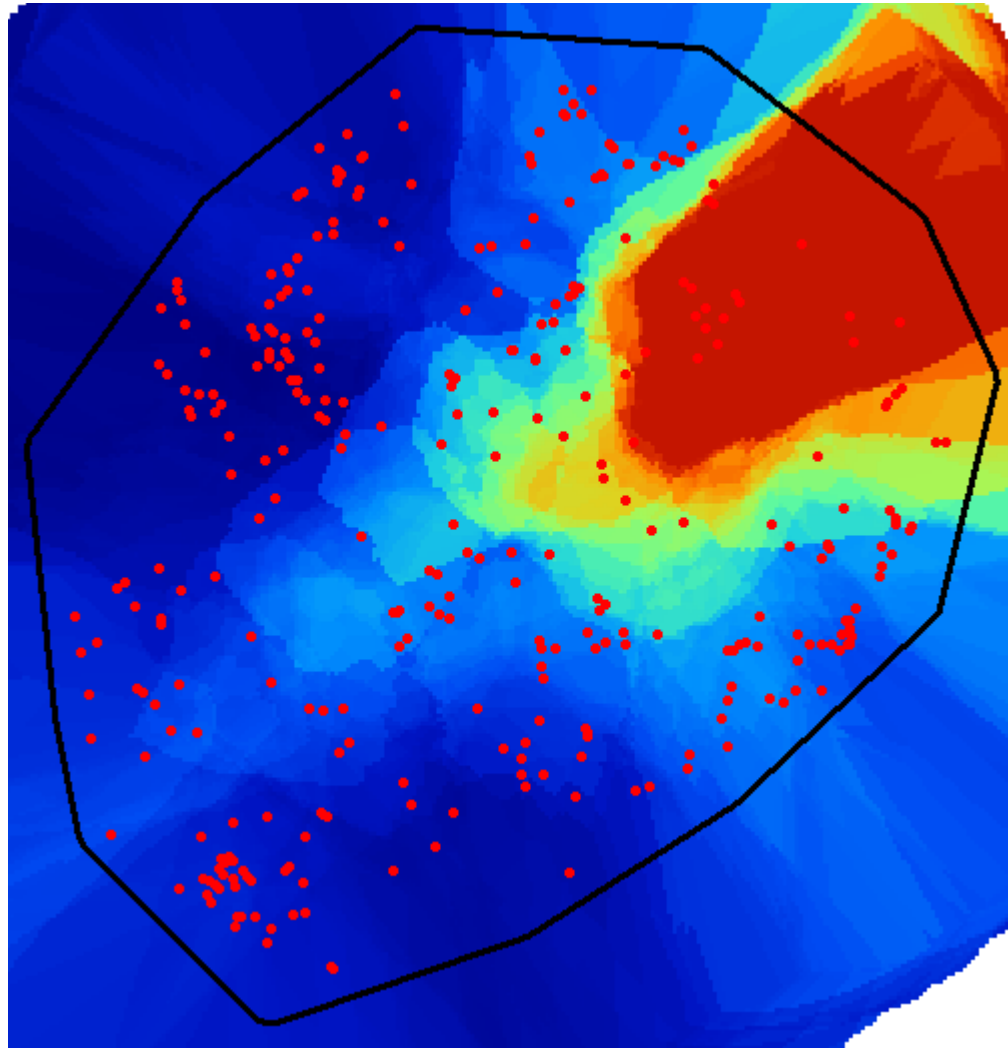
Defaults

Generar Superficie

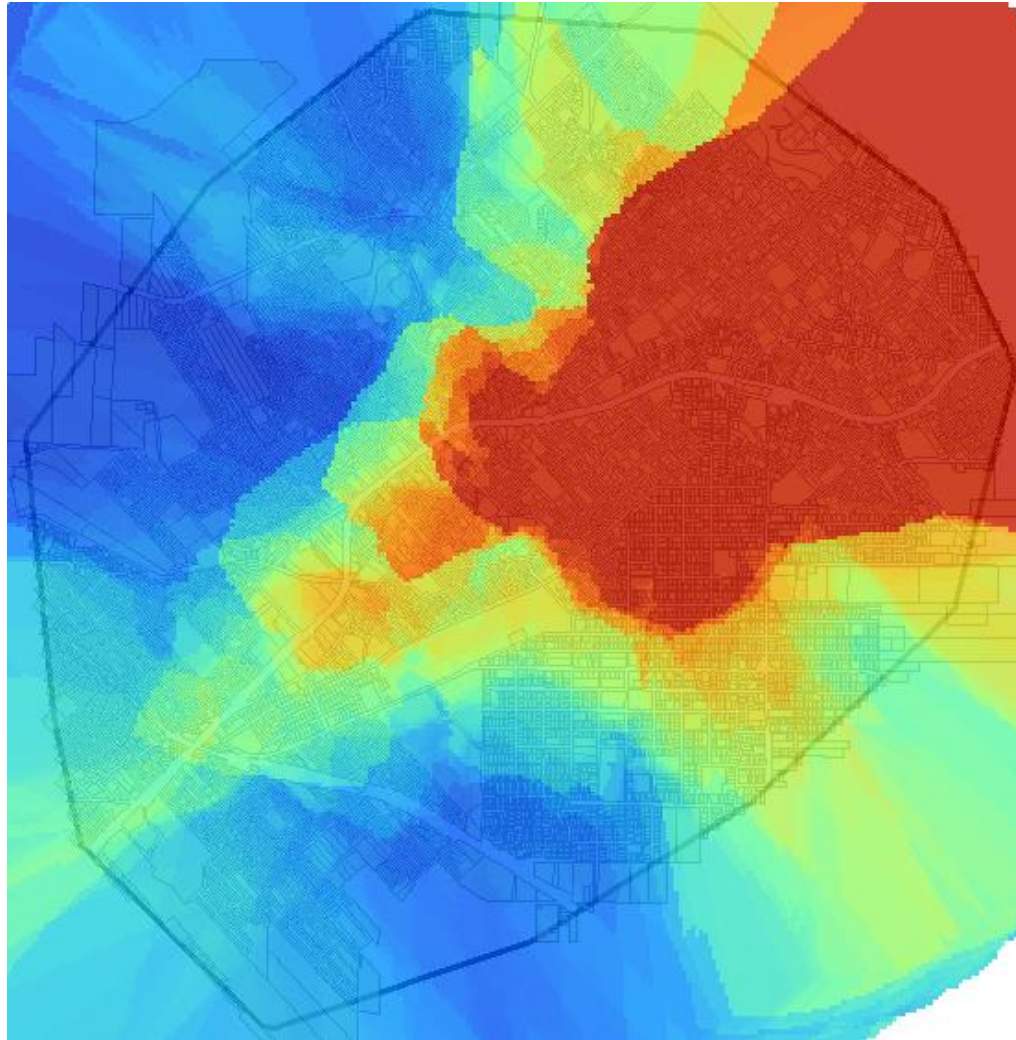


Doble clic sobre la
Capa

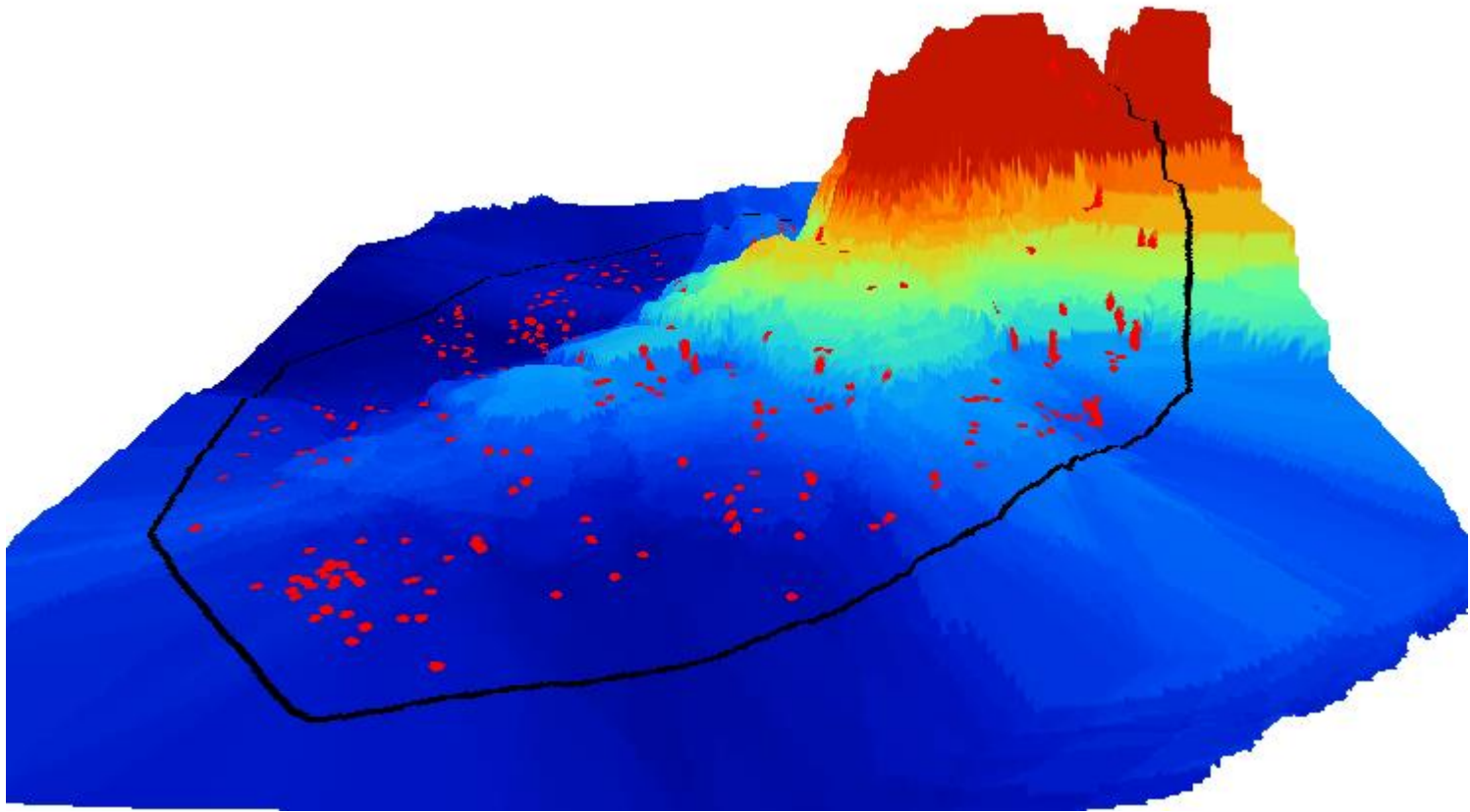
Generar Superfície



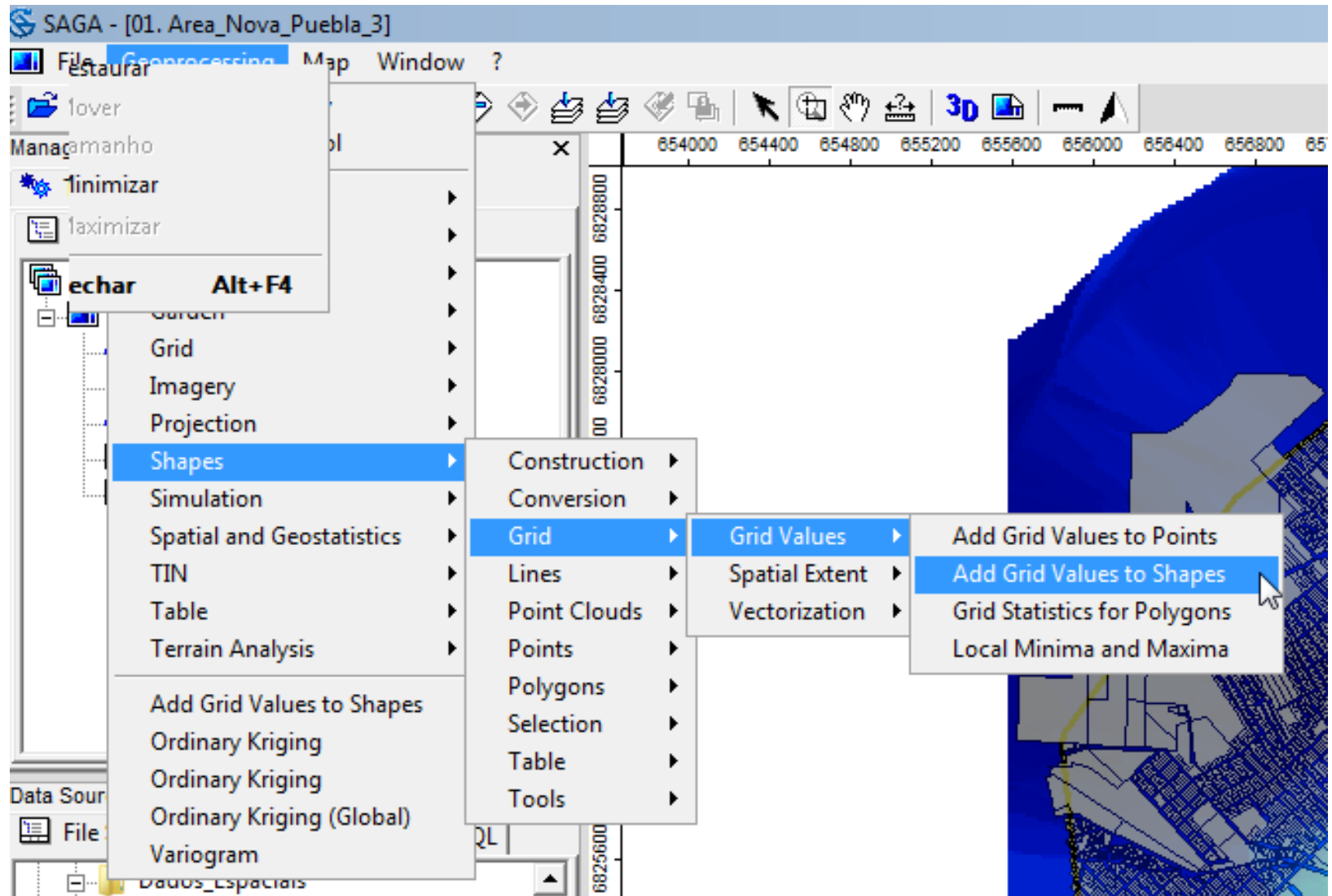
Generar Superficie



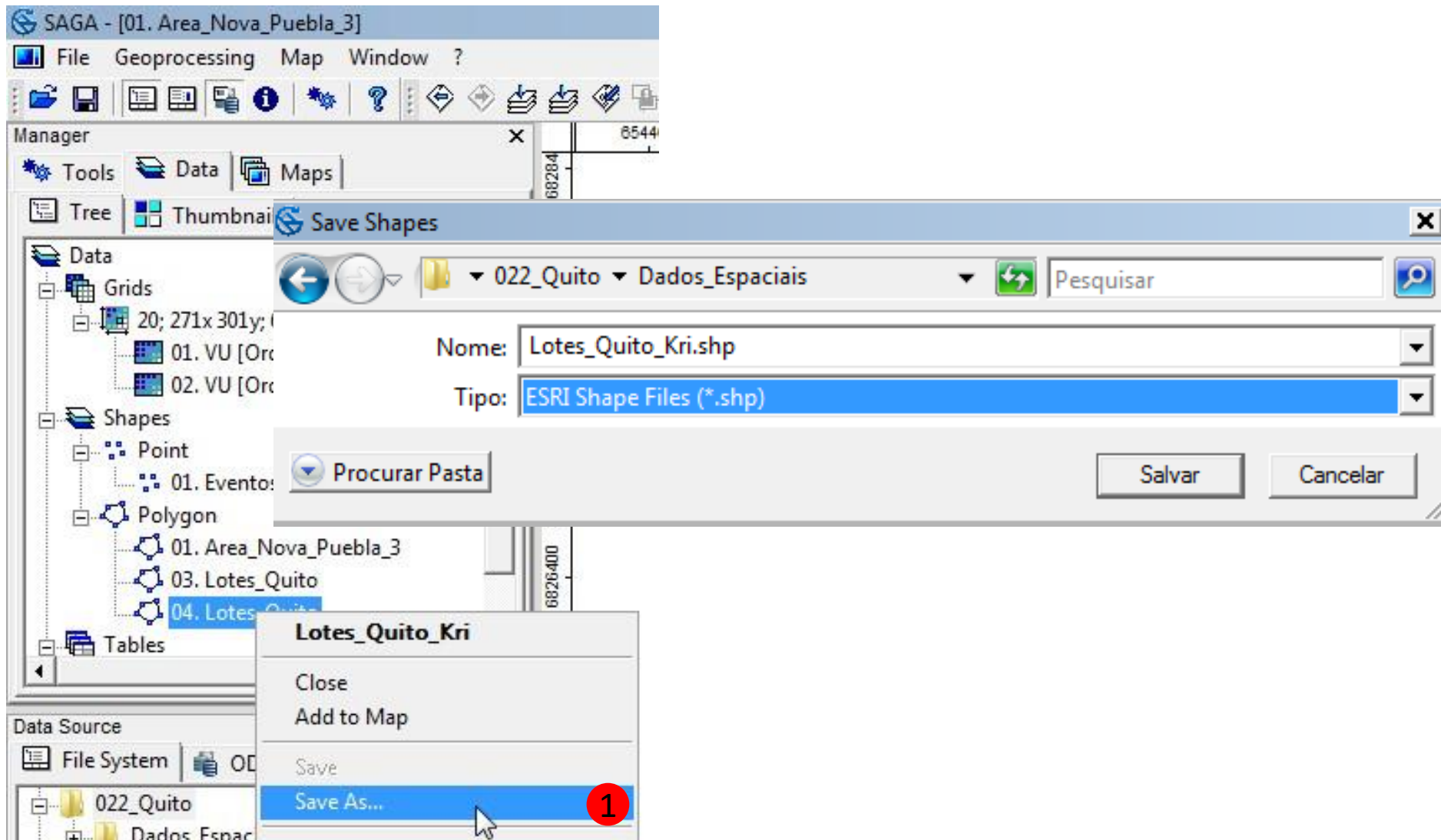
Generar Superficie



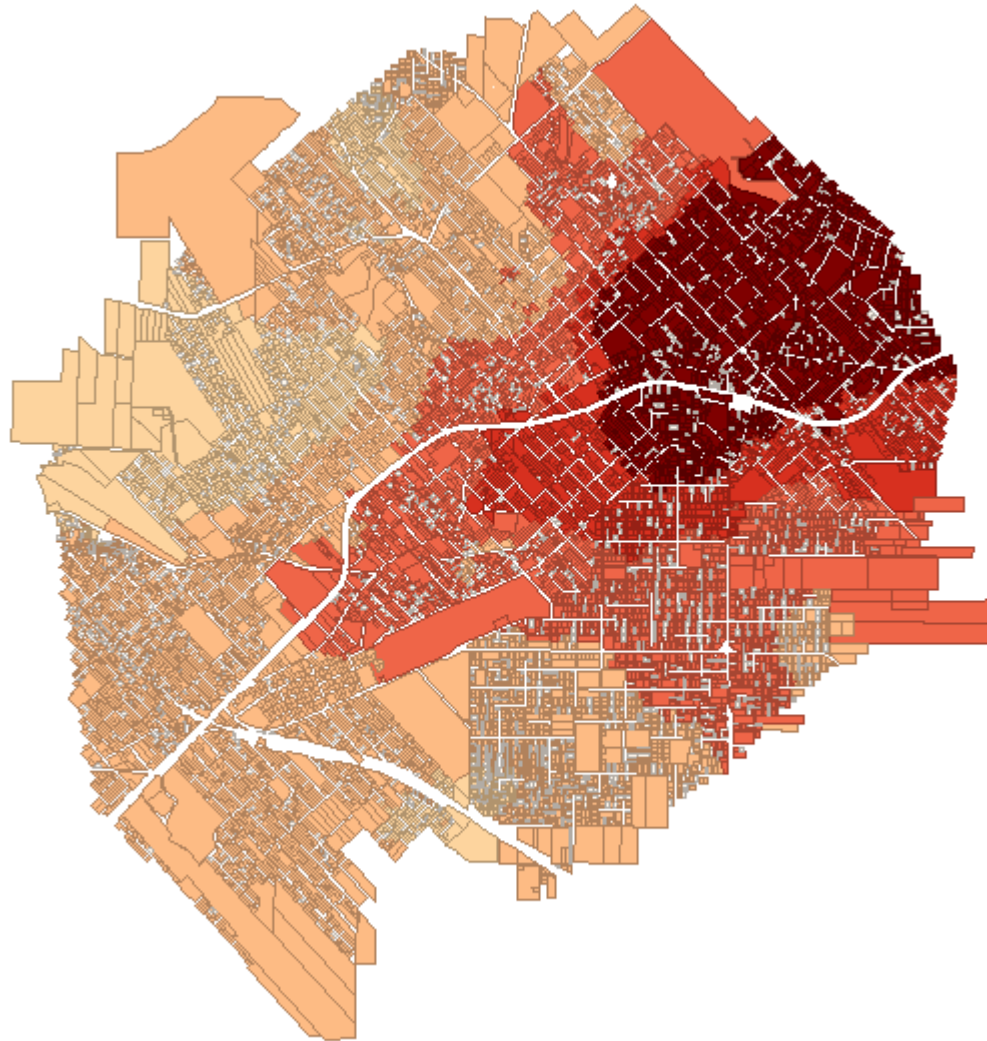
Adicionar VU de la Superficie a los Lotes



Salvar la nueva Capa - SHP



Visualización de los VU



Muchas Gracias!