

Fig.1: GISの概念図

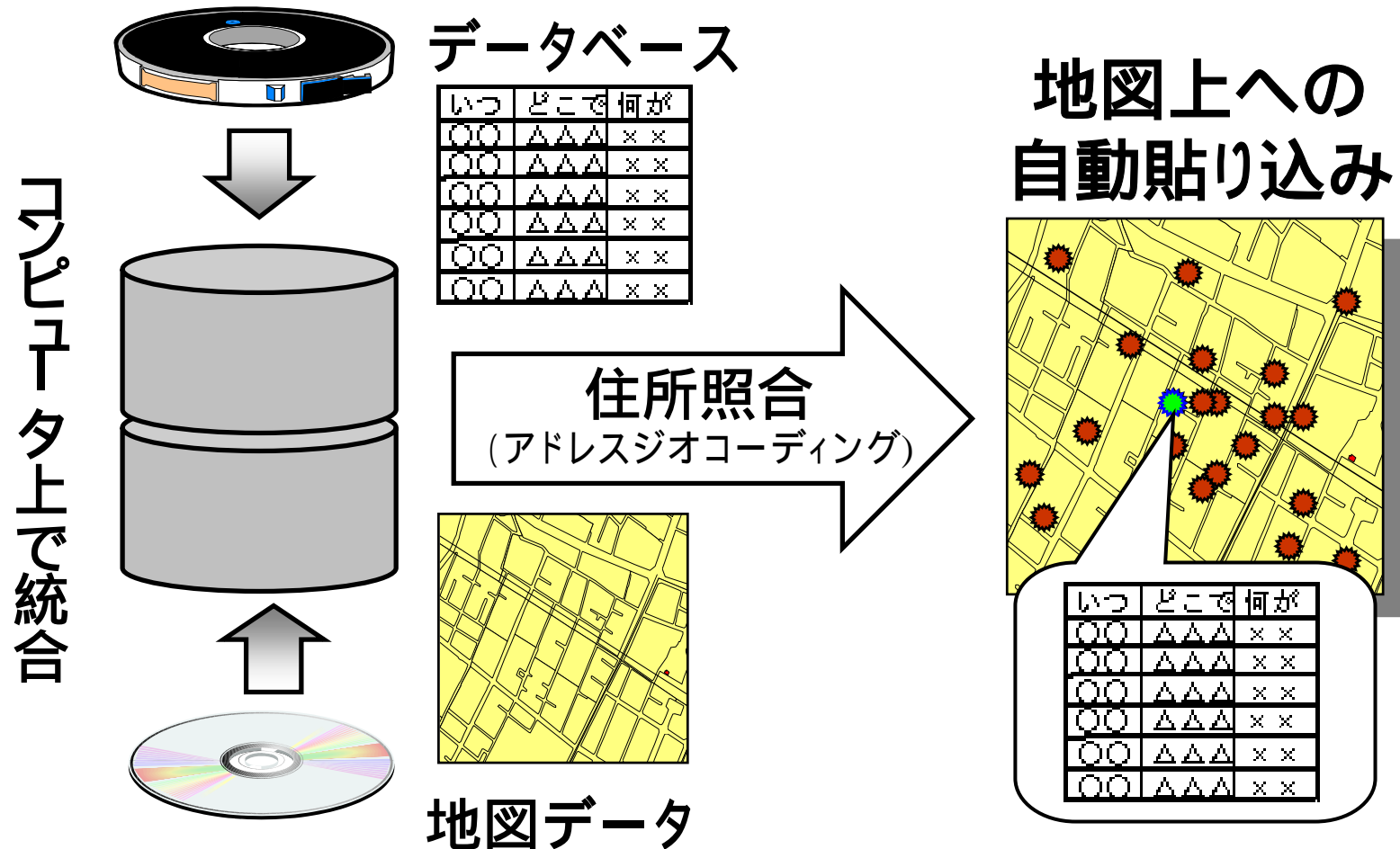


Fig.2: Citizen ICAM (シカゴ市警ホームページ)

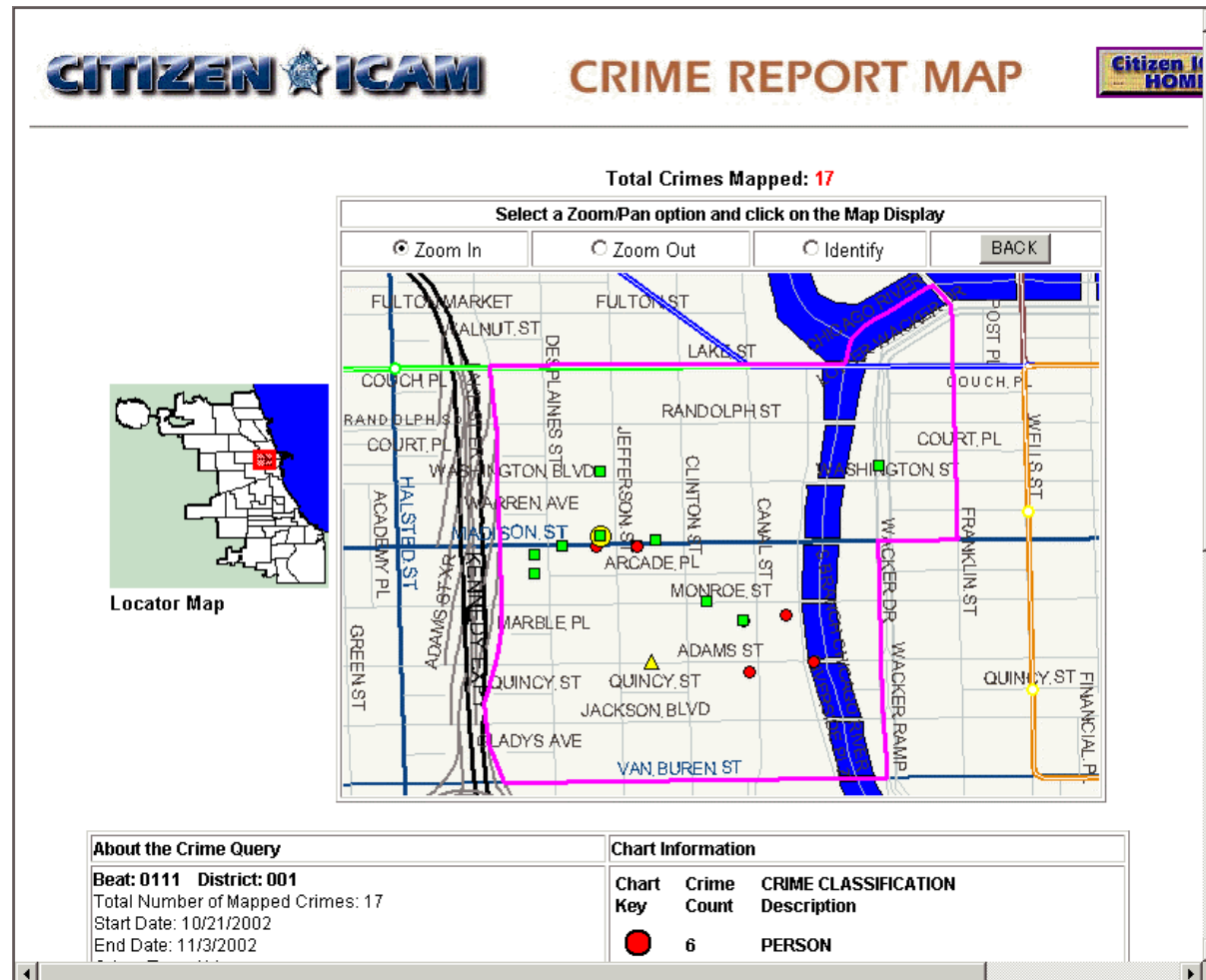


Fig.3:階層的住所照合 (原田・島田,1998)

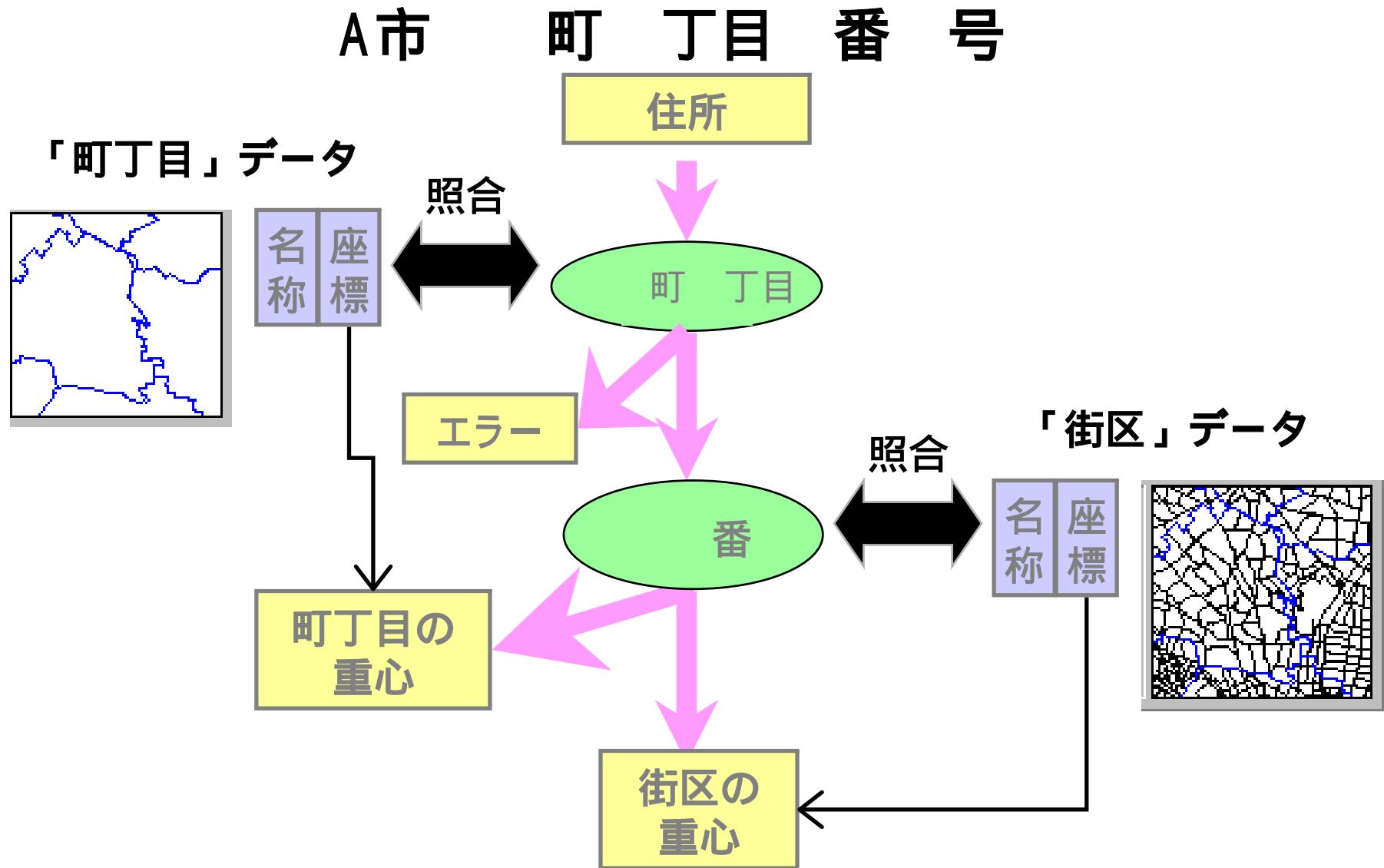


Fig.4 核関数による平滑化の例

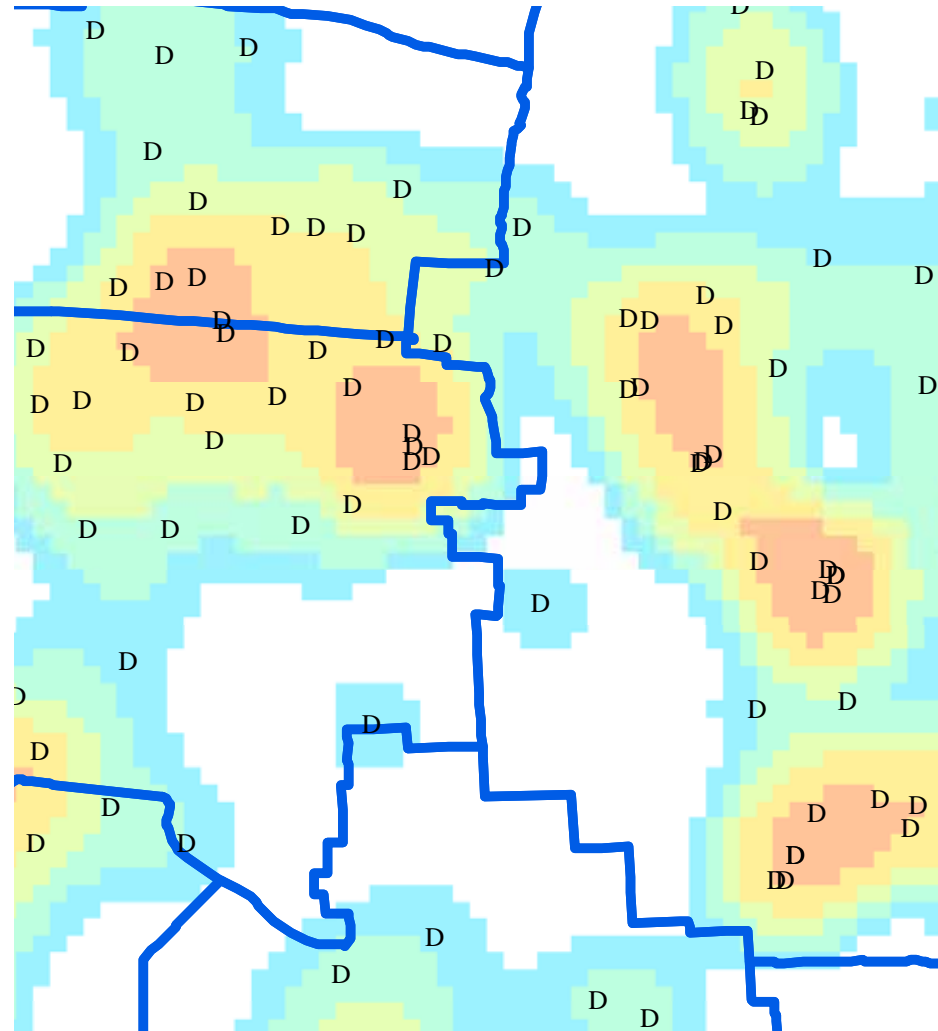


Fig.5: Moran's Scatterplot

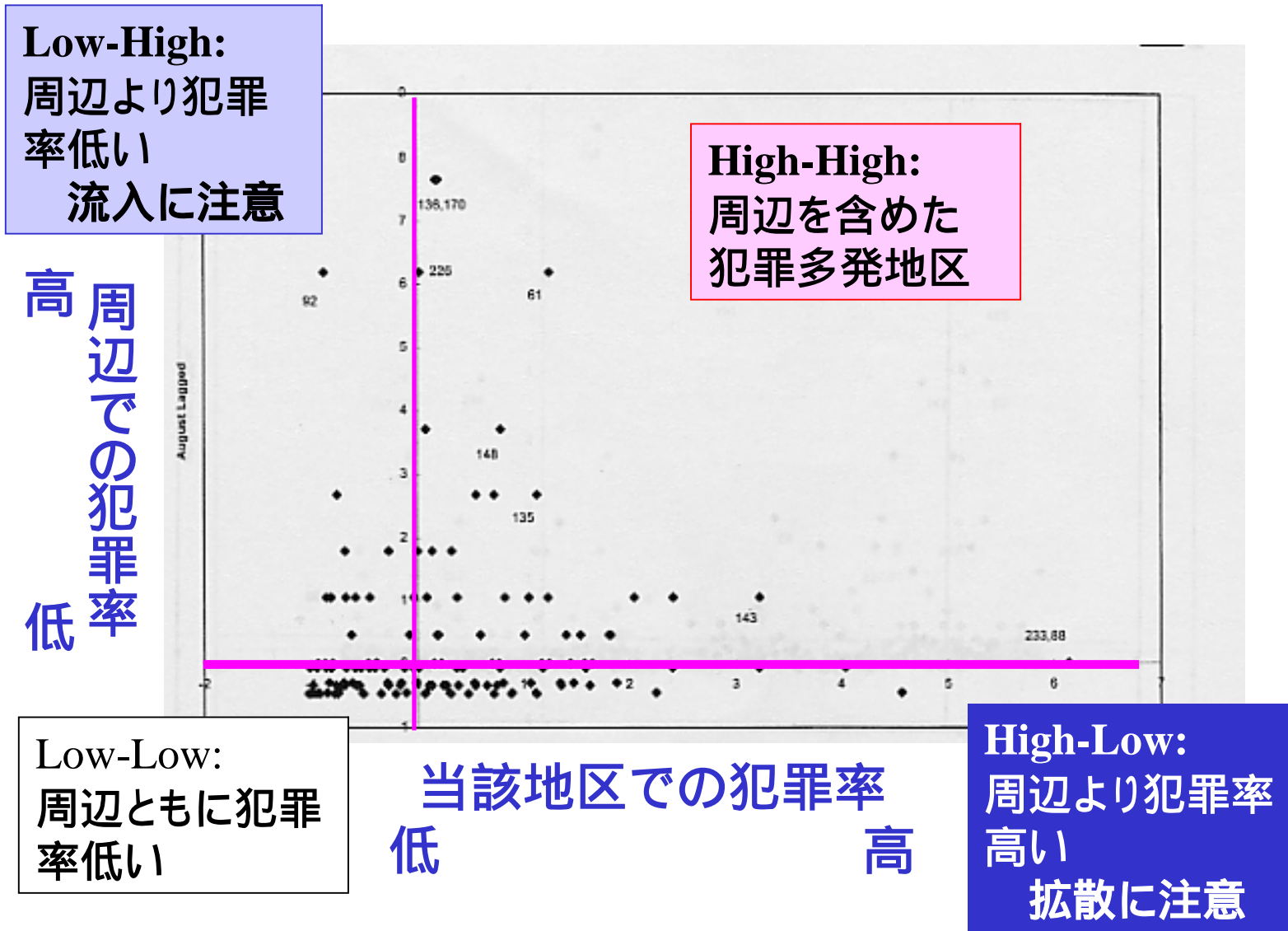


Fig.6: S+ArcViewエクステンションの登録

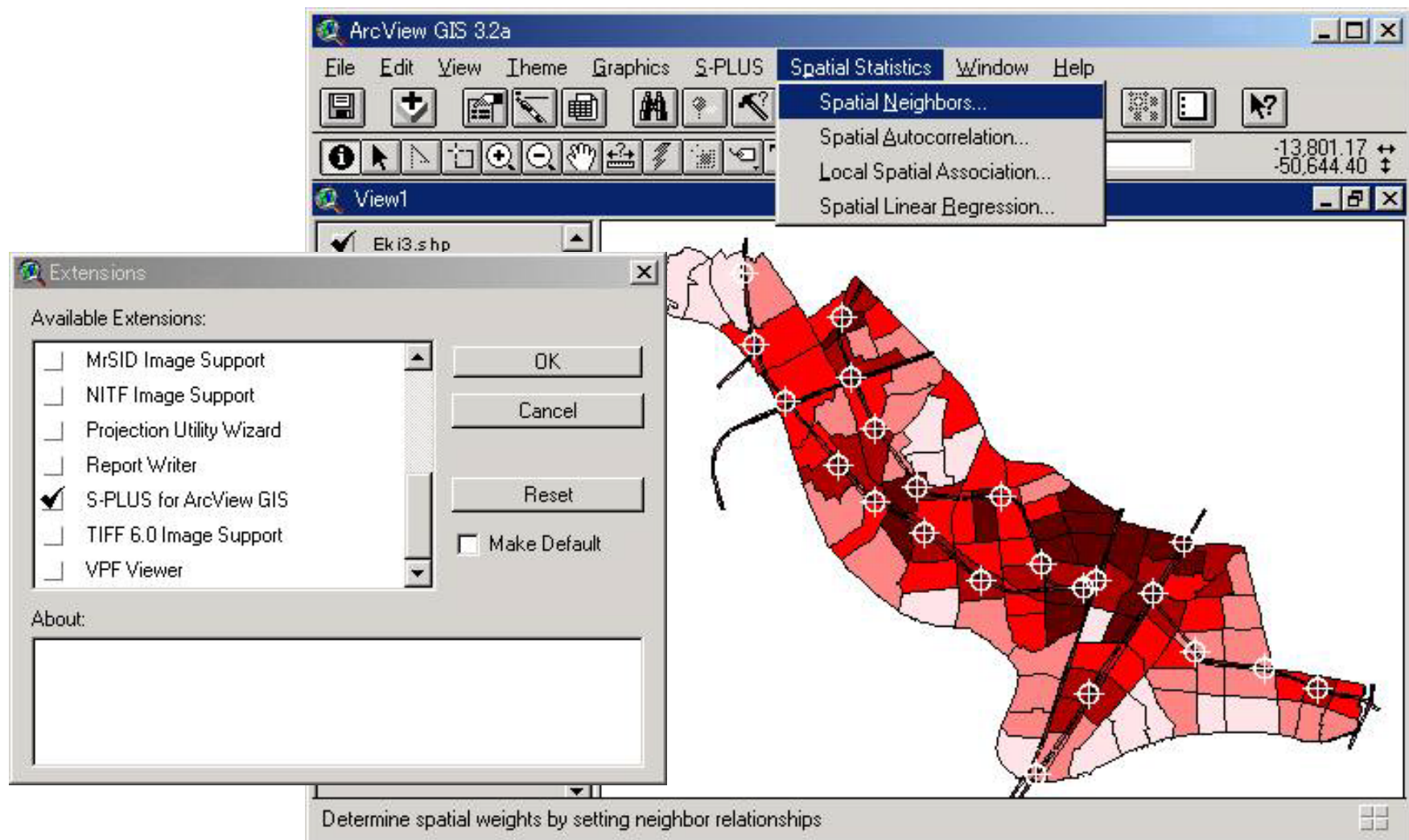


Fig.7:空間重み行列の算出

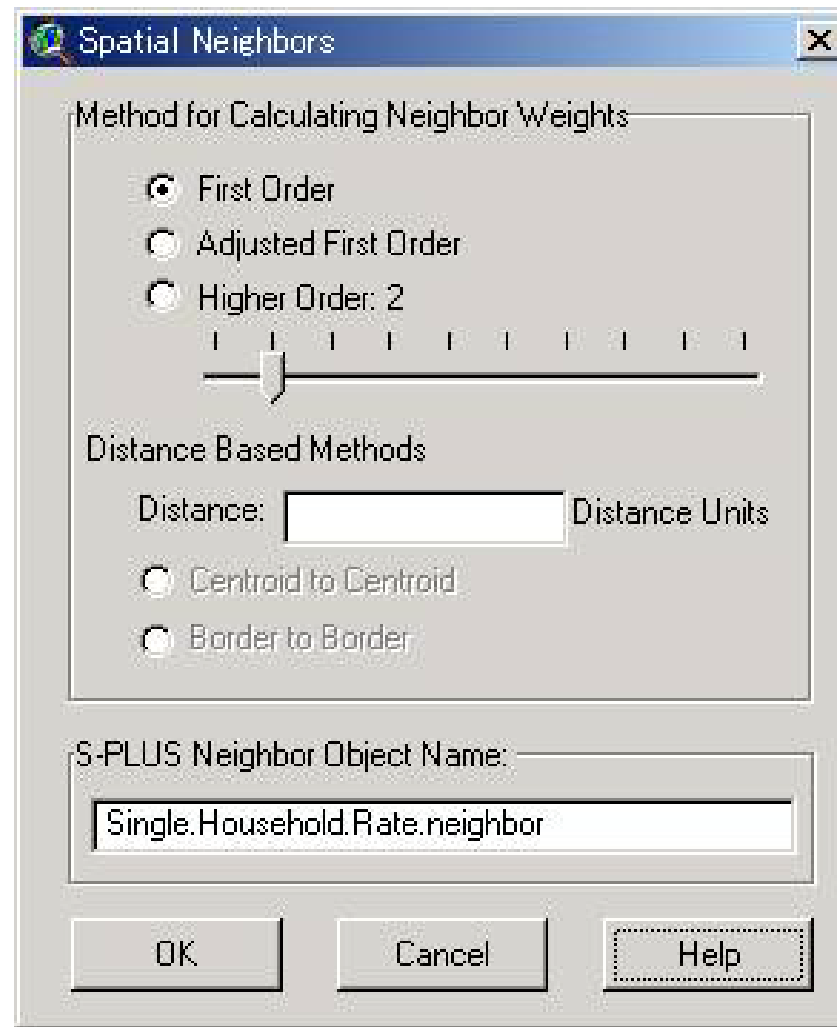


Fig.8: Moran's I 出力結果

The image shows two overlapping windows from the S-PLUS software. The background window, titled "Single Household Rate_cor - メモ帳", displays the output of a Moran's I spatial autocorrelation analysis. The text in this window is as follows:

```
*** Spatial Autocorrelation Analysis for Rate_sin ***  
  
Spatial Correlation Estimate  
Statistic = "moran" Sampling = "free"  
  
Correlation = 0.5304  
Variance = 0.003436  
Std. Error = 0.05862  
  
Normal statistic = 9.214  
Normal p-value (2-sided) = 3.151e-20  
  
Null Hypothesis: No spatial autocorrelation  
  
Summary of the permutation-correlations :  
      Min. 1st Qu. Median  Mean 3rd Qu.  Max.  
-0.002617  0.144 0.1823 0.1845  0.2249 0.4379  
  
permutation p-value = 0
```

The foreground window, titled "Spatial Autocorrelation", is a dialog box with the following settings:

- Select Columns from Either Source:**
 - Numeric Theme Fields:** Mpop_m2, Mpop_m3, P_h, **Rate_sin**, Rate_own
 - S-PLUS Data Frames:** Buildsocial.lisa
 - Columns:** Zi, LocalMoran, EXP, WAP
- Variables for Analysis:** Rate_sin
- S-PLUS Neighbor Object:** Single.Household.Rate.neighbor
- Correlation Index:** Moran's I, Geary's c
- Monte Carlo Distribution of Correlation Index:** Number of Permutations: 1000
- Saved Results:**
 - Summary Report (ASCII):** c:\docume~1\takajin\locals~1\tem
 - Display File after Computation
 - S-PLUS Object:** Single.Household.Rate.cor

Buttons at the bottom of the dialog include OK, Cancel, and Help.

Fig.9:ローカルな空間的自己相関

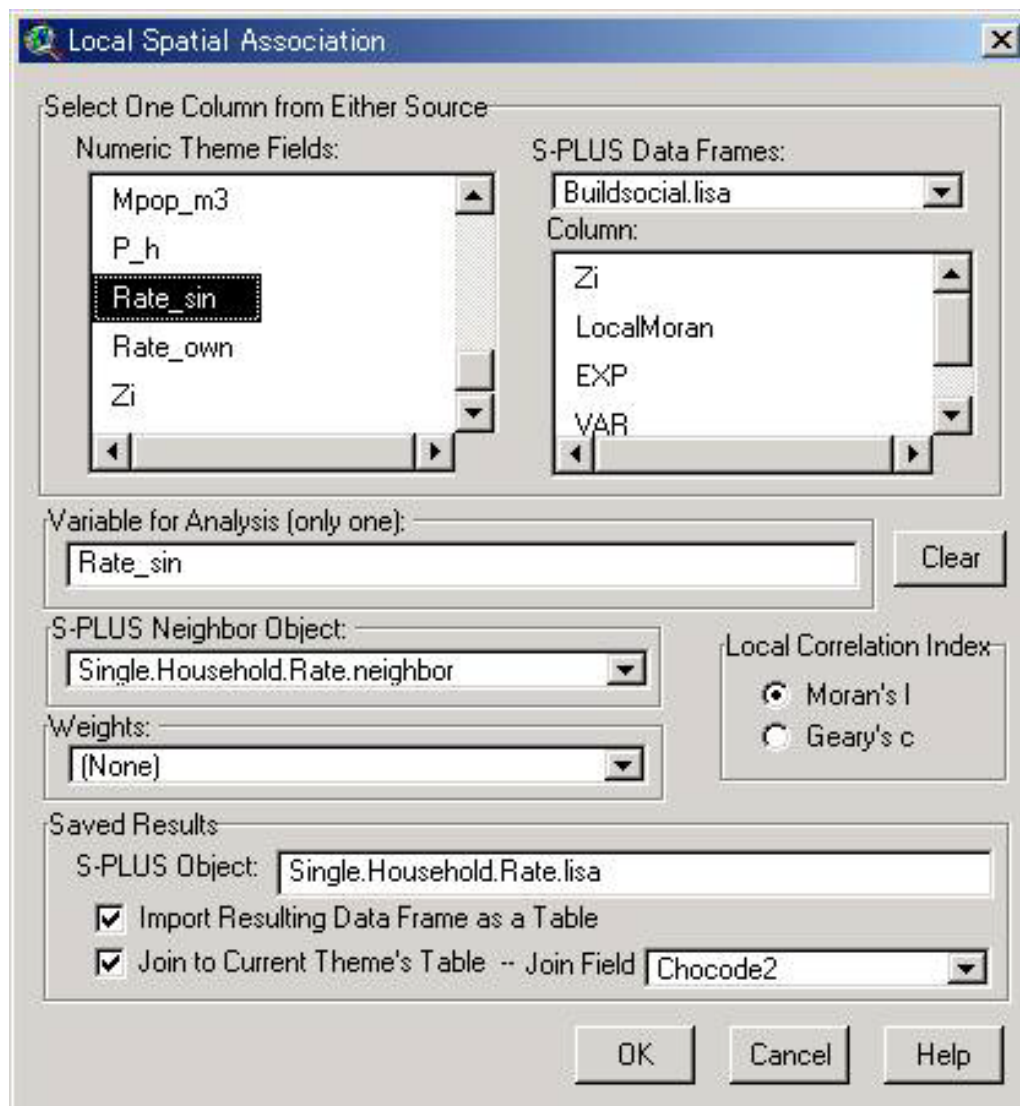


Fig.10:東京23区の住宅侵入事件の被害率

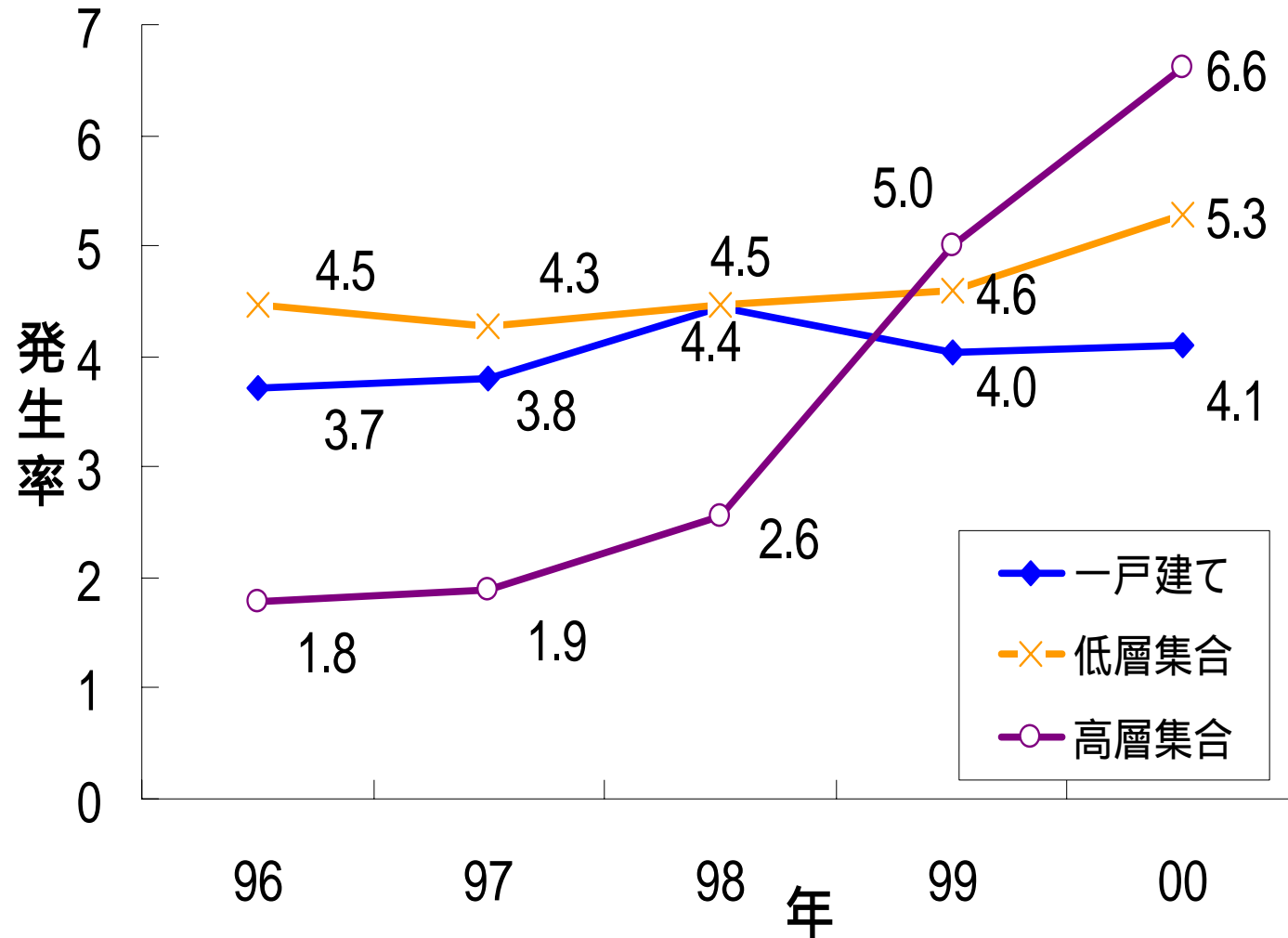


Fig.11: Moran's ScatterPlot & Map の例 (一戸建て住宅の侵入被害率)

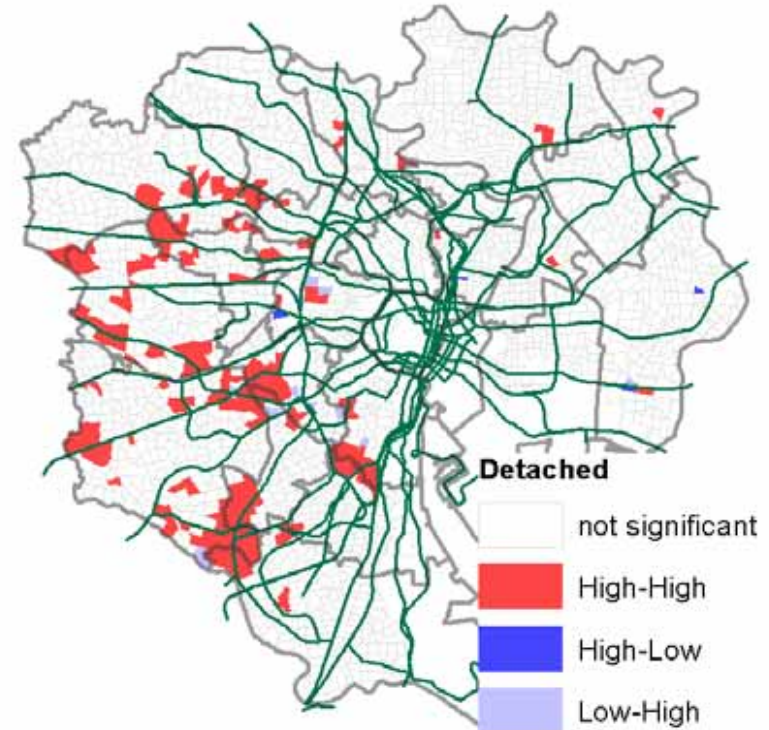
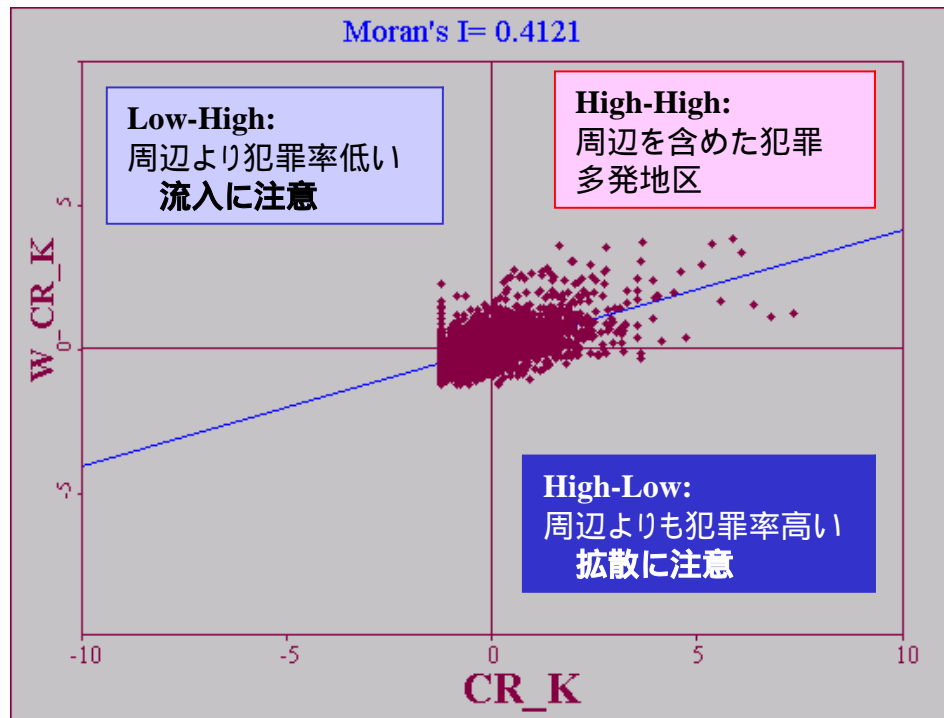


Fig.12:高層集合住宅対象侵入事件の ホットスポットの推移

