

CHAPTER IV

RESULTS: MEXICO, PUEBLA, GUANAJUATO

Because this study was performed in two parts, separated by a period of time, and because some of the techniques employed differed from one study to the other, the results are presented in two chapters. Mexico, Puebla, and Guanajuato are treated in this chapter, and San Cristobal las Casas in Chapter V. We utilized a 5% "cutoff" in graphic image designation, i.e. no element mentioned by fewer than 5% of the respondents is shown on the maps.

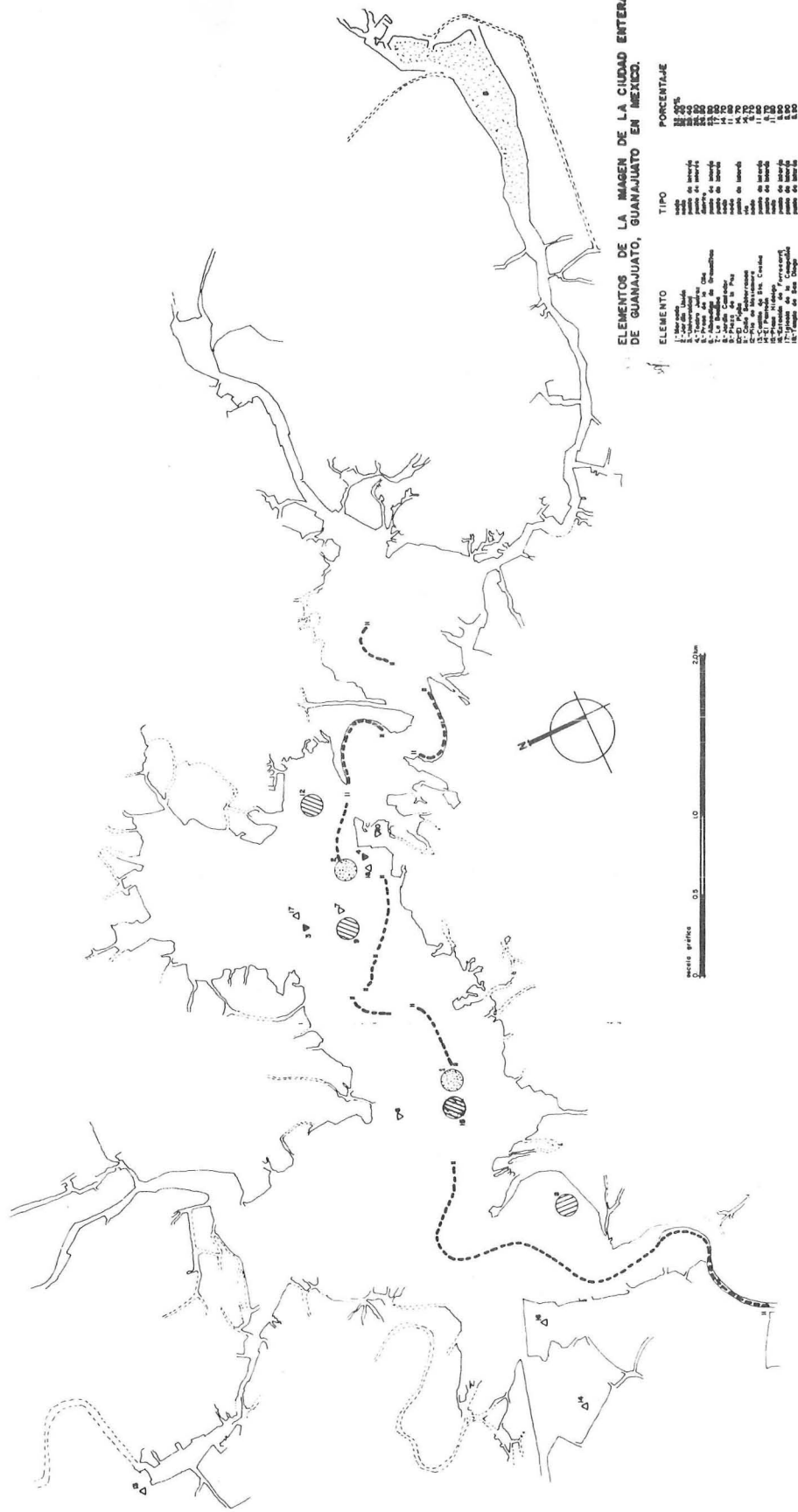
Point imagery: Guanajuato and Puebla

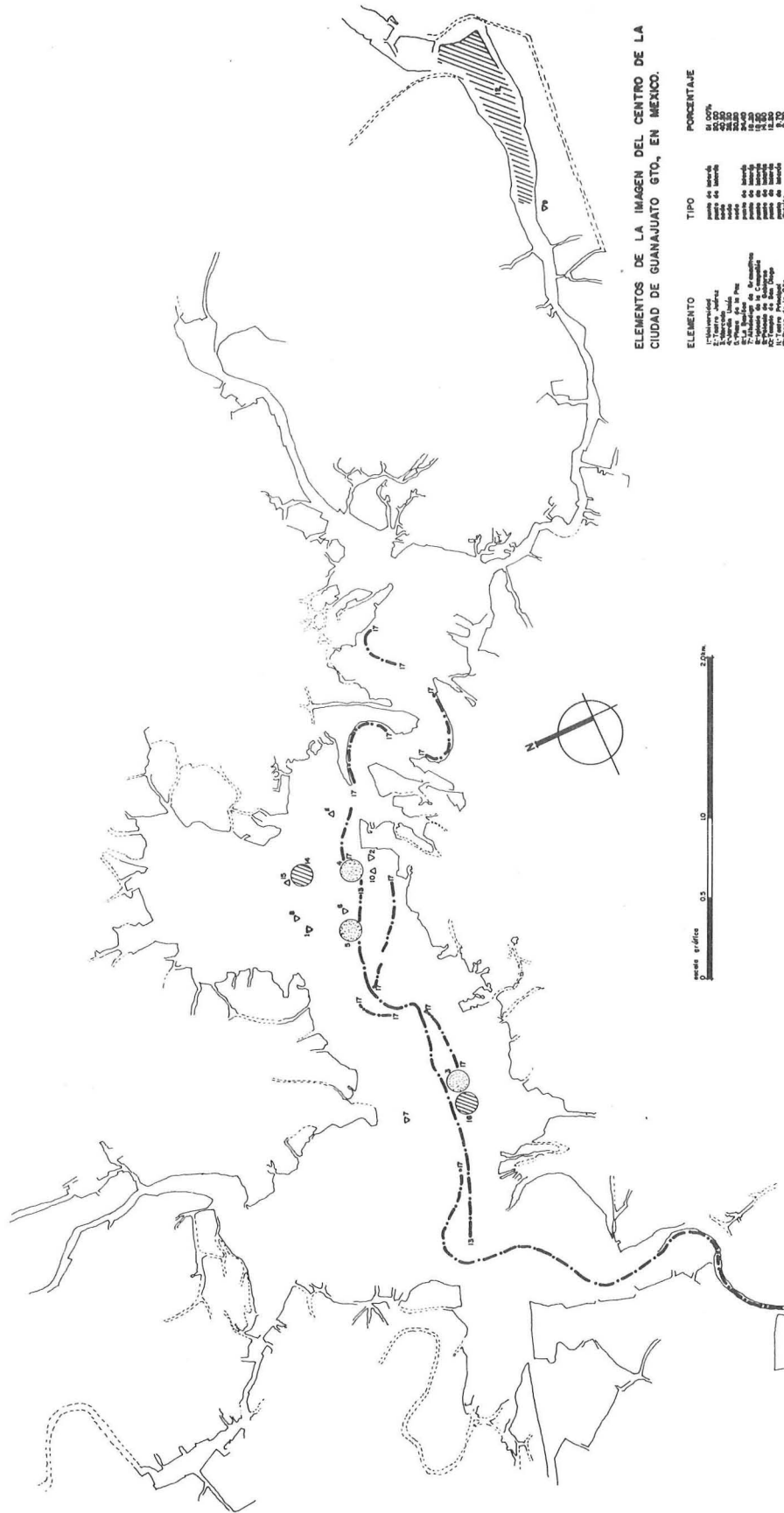
"Point images" of the city and center of Guanajuato are presented in Figures 10 and 11.

Partly because they have been drawn on the same outline map, the two seem, at first, almost indistinguishable. In fact, the image of Guanajuato's center is "tighter", but very slightly so, than the image of the city as a whole. La Presa de la Olla - a feature decidedly removed from the geographical center of the city - appears in both images although mentioned three times more often as part of the city than of the center. Taking the ten most frequently cited elements in each map together, we see that the first four are identical in both maps, although cited in different order. Of all the elements indicated, only one could be classified as other than a landmark or node: La Presa de la Olla, again. Taken as wholes, the most significant overall characteristic of the two images appears to be their linear ordering, along the roughly parallel Calle Subterranea and Avenida Juarez (together, the two major one-way thoroughfares traversing the city).

Puebla represents totally different images. Both "city" and "center" maps show a tight clustering of imageable points about the central Plaza. Although several path names are mentioned, these are all resolvable into the two major axes of the city, plus an important bypass. Three of the four elements mentioned are common to the two images; of particular interest is the fact that "Woolworth" occupies position #4 in both - is this a symbol of the progress that Puebla is now longing for? Paths figure only slightly more prominently in the first ten elements of the Puebla image than in Guanajuato, the majority of the elements mentioned

Figures 10 and 11. Point imagery of Guanajuato,
City and Center

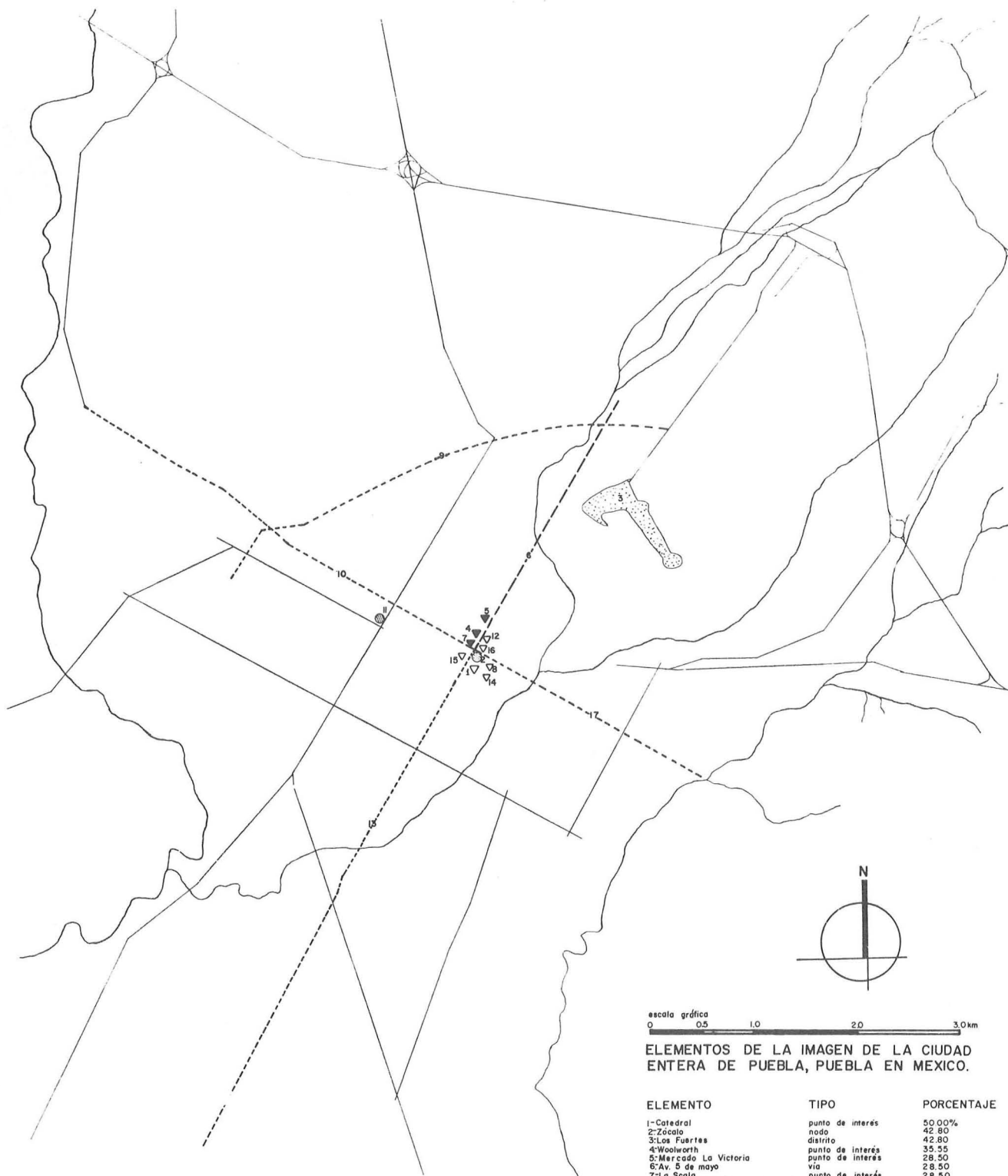




ELEMENTOS DE LA IMAGEN DEL CENTRO DE LA CIUDAD DE GUANAJUATO GTO., EN MEXICO.

ELEMENTO	TIPO	PORCENTAJE
1. Centro urbano	Centro de la ciudad	10.00%
2. Zona industrial	Zona industrial	15.00%
3. Zona residencial	Zona residencial	25.00%
4. Zona comercial	Zona comercial	20.00%
5. Zona de servicios	Zona de servicios	10.00%
6. Zona de recreo	Zona de recreo	5.00%
7. Zona de transporte	Zona de transporte	5.00%
8. Zona de salud	Zona de salud	5.00%
9. Zona de cultura	Zona de cultura	5.00%
10. Zona de deporte	Zona de deporte	5.00%
11. Zona de educación	Zona de educación	5.00%
12. Zona de investigación	Zona de investigación	5.00%
13. Zona de desarrollo	Zona de desarrollo	5.00%
14. Zona de conservación	Zona de conservación	5.00%
15. Zona de patrimonio	Zona de patrimonio	5.00%
16. Zona de memoria	Zona de memoria	5.00%
17. Zona de identidad	Zona de identidad	5.00%
18. Zona de pertenencia	Zona de pertenencia	5.00%
19. Zona de compromiso	Zona de compromiso	5.00%
20. Zona de responsabilidad	Zona de responsabilidad	5.00%
21. Zona de justicia	Zona de justicia	5.00%
22. Zona de paz	Zona de paz	5.00%
23. Zona de amor	Zona de amor	5.00%
24. Zona de fe	Zona de fe	5.00%
25. Zona de esperanza	Zona de esperanza	5.00%
26. Zona de caridad	Zona de caridad	5.00%
27. Zona de solidaridad	Zona de solidaridad	5.00%
28. Zona de fraternidad	Zona de fraternidad	5.00%
29. Zona de unidad	Zona de unidad	5.00%
30. Zona de armonía	Zona de armonía	5.00%
31. Zona de equilibrio	Zona de equilibrio	5.00%
32. Zona de bienestar	Zona de bienestar	5.00%
33. Zona de felicidad	Zona de felicidad	5.00%
34. Zona de plenitud	Zona de plenitud	5.00%
35. Zona de realización	Zona de realización	5.00%
36. Zona de trascendencia	Zona de trascendencia	5.00%
37. Zona de eternidad	Zona de eternidad	5.00%
38. Zona de vida	Zona de vida	5.00%
39. Zona de amor	Zona de amor	5.00%
40. Zona de fe	Zona de fe	5.00%
41. Zona de esperanza	Zona de esperanza	5.00%
42. Zona de caridad	Zona de caridad	5.00%
43. Zona de solidaridad	Zona de solidaridad	5.00%
44. Zona de fraternidad	Zona de fraternidad	5.00%
45. Zona de unidad	Zona de unidad	5.00%
46. Zona de armonía	Zona de armonía	5.00%
47. Zona de equilibrio	Zona de equilibrio	5.00%
48. Zona de bienestar	Zona de bienestar	5.00%
49. Zona de felicidad	Zona de felicidad	5.00%
50. Zona de plenitud	Zona de plenitud	5.00%
51. Zona de realización	Zona de realización	5.00%
52. Zona de trascendencia	Zona de trascendencia	5.00%
53. Zona de eternidad	Zona de eternidad	5.00%
54. Zona de vida	Zona de vida	5.00%
55. Zona de amor	Zona de amor	5.00%
56. Zona de fe	Zona de fe	5.00%
57. Zona de esperanza	Zona de esperanza	5.00%
58. Zona de caridad	Zona de caridad	5.00%
59. Zona de solidaridad	Zona de solidaridad	5.00%
60. Zona de fraternidad	Zona de fraternidad	5.00%
61. Zona de unidad	Zona de unidad	5.00%
62. Zona de armonía	Zona de armonía	5.00%
63. Zona de equilibrio	Zona de equilibrio	5.00%
64. Zona de bienestar	Zona de bienestar	5.00%
65. Zona de felicidad	Zona de felicidad	5.00%
66. Zona de plenitud	Zona de plenitud	5.00%
67. Zona de realización	Zona de realización	5.00%
68. Zona de trascendencia	Zona de trascendencia	5.00%
69. Zona de eternidad	Zona de eternidad	5.00%
70. Zona de vida	Zona de vida	5.00%
71. Zona de amor	Zona de amor	5.00%
72. Zona de fe	Zona de fe	5.00%
73. Zona de esperanza	Zona de esperanza	5.00%
74. Zona de caridad	Zona de caridad	5.00%
75. Zona de solidaridad	Zona de solidaridad	5.00%
76. Zona de fraternidad	Zona de fraternidad	5.00%
77. Zona de unidad	Zona de unidad	5.00%
78. Zona de armonía	Zona de armonía	5.00%
79. Zona de equilibrio	Zona de equilibrio	5.00%
80. Zona de bienestar	Zona de bienestar	5.00%
81. Zona de felicidad	Zona de felicidad	5.00%
82. Zona de plenitud	Zona de plenitud	5.00%
83. Zona de realización	Zona de realización	5.00%
84. Zona de trascendencia	Zona de trascendencia	5.00%
85. Zona de eternidad	Zona de eternidad	5.00%
86. Zona de vida	Zona de vida	5.00%
87. Zona de amor	Zona de amor	5.00%
88. Zona de fe	Zona de fe	5.00%
89. Zona de esperanza	Zona de esperanza	5.00%
90. Zona de caridad	Zona de caridad	5.00%
91. Zona de solidaridad	Zona de solidaridad	5.00%
92. Zona de fraternidad	Zona de fraternidad	5.00%
93. Zona de unidad	Zona de unidad	5.00%
94. Zona de armonía	Zona de armonía	5.00%
95. Zona de equilibrio	Zona de equilibrio	5.00%
96. Zona de bienestar	Zona de bienestar	5.00%
97. Zona de felicidad	Zona de felicidad	5.00%
98. Zona de plenitud	Zona de plenitud	5.00%
99. Zona de realización	Zona de realización	5.00%
100. Zona de trascendencia	Zona de trascendencia	5.00%

Figures 12 and 13. Point imagery of Puebla,
City and Center



ELEMENTOS DE LA IMAGEN DE LA CIUDAD ENTERA DE PUEBLA, PUEBLA EN MEXICO.

ELEMENTO	TIPO	PORCENTAJE
1-Catedral	punto de interés	50.00%
2-Zacalo	nodo	42.80
3-Los Fuertes	distrito	42.80
4-Woolworth	punto de interés	35.55
5-Mercado La Victoria	punto de interés	28.50
6-Av. 5 de mayo	vía	28.50
7-La Scala	punto de interés	28.50
8-Universidad Autónoma de Puebla	punto de interés	21.40
9-Diagonal Defensores	vía	21.40
10-Av. Reforma	vía	21.40
11-Paseo Bravo	nodo	14.20
12-Café Rodoreda	punto de interés	14.20
13-Av. 16 de septiembre	vía	14.20
14-El Sol de Puebla	punto de interés	14.20
15-Almacenes Rodríguez	punto de interés	14.20
16-Hotel Royalty	punto de interés	14.20
17-Av. Manuel Avila Camacho	vía	14.20



ELEMENTOS DE LA IMAGEN DEL CENTRO DE LA CIUDAD DE PUEBLA, PUEBLA EN MEXICO.

ELEMENTO	TIPO	PORCENTAJE
1-Zócalo	nodo	76.00%
2-Catedral	punto de interés	73.00
3-Palacio de Gobierno	punto de interés	26.00
4-Woolworth	punto de interés	25.40
5-Palacio Municipal	punto de interés	24.50
6-Universidad Autónoma de Puebla	punto de interés	18.40
7-Paseo Bravo	nodo	18.40
8-Los Fuertes	distrito	18.40
9-Av. 5 de mayo	vía	23.70
10-Av. Reforma	vía	20.75
11-El Correo	punto de interés	15.40
12-Mercado La Victoria	punto de interés	13.00
13-Av. 16 de septiembre	vía	18.40
14-Sears	punto de interés	11.50
15-Iglesia de Sta. Domingo	punto de interés	10.00
16-Av. Manuel Avila Camacho	vía	7.70
17-La Scala	punto de interés	7.70
18-Almacenes Rodriguez	punto de interés	6.18
19-La Casa del Alfaique	punto de interés	5.38
20-Café Rodoreda	punto de interés	5.38
21-Iglesia de San Francisco	punto de interés	5.38

escala gráfica
0 0.25 0.50 1.00 km

being classifiable, again, into landmarks or nodes.

Point imagery: Mexico:

The point image maps of Mexico and its center consider both verbal and graphic responses. In most cases, the percentage of respondents associated with a given element represents the higher percentage - either verbal or graphic - recorded.¹ On the composite map of Mexico, however, two lists of elements are presented separately. Ordinal numbers referring to one of the lists are underlined for easy discrimination.

The characteristics of Mexico portrayed in imagery are clearly distinct from those of Puebla and Guanajuato. First, the city and center are decidedly different in extent. Second, none of the maps of Puebla and Guanajuato contain more than one element classifiable as a district, while as many as 15 appear on the map of Mexico - a fact partly attributable, of course, to the very much larger size of the capital, which, hence, has many more localities classifiable as districts. Third, the elements of Mexico, as we have classified them, are more evenly distributed over four of the five categories suggested by Lynch. Fourth, the elements are more evenly spread over the city in Mexico than in Guanajuato, and much more so than in Puebla. This is somewhat less true of the Center. In Puebla the major landmarks and nodes are distributed along a short segment of the continuous Avenida 5 de Mayo - 16 de Septiembre. Many more paths are indicated in Mexico's image, but the major landmarks and nodes are also distributed along a single path, the continuous Av. Reforma - Juarez - Madero. Four of the five most frequently mentioned elements of the city and center coincide.

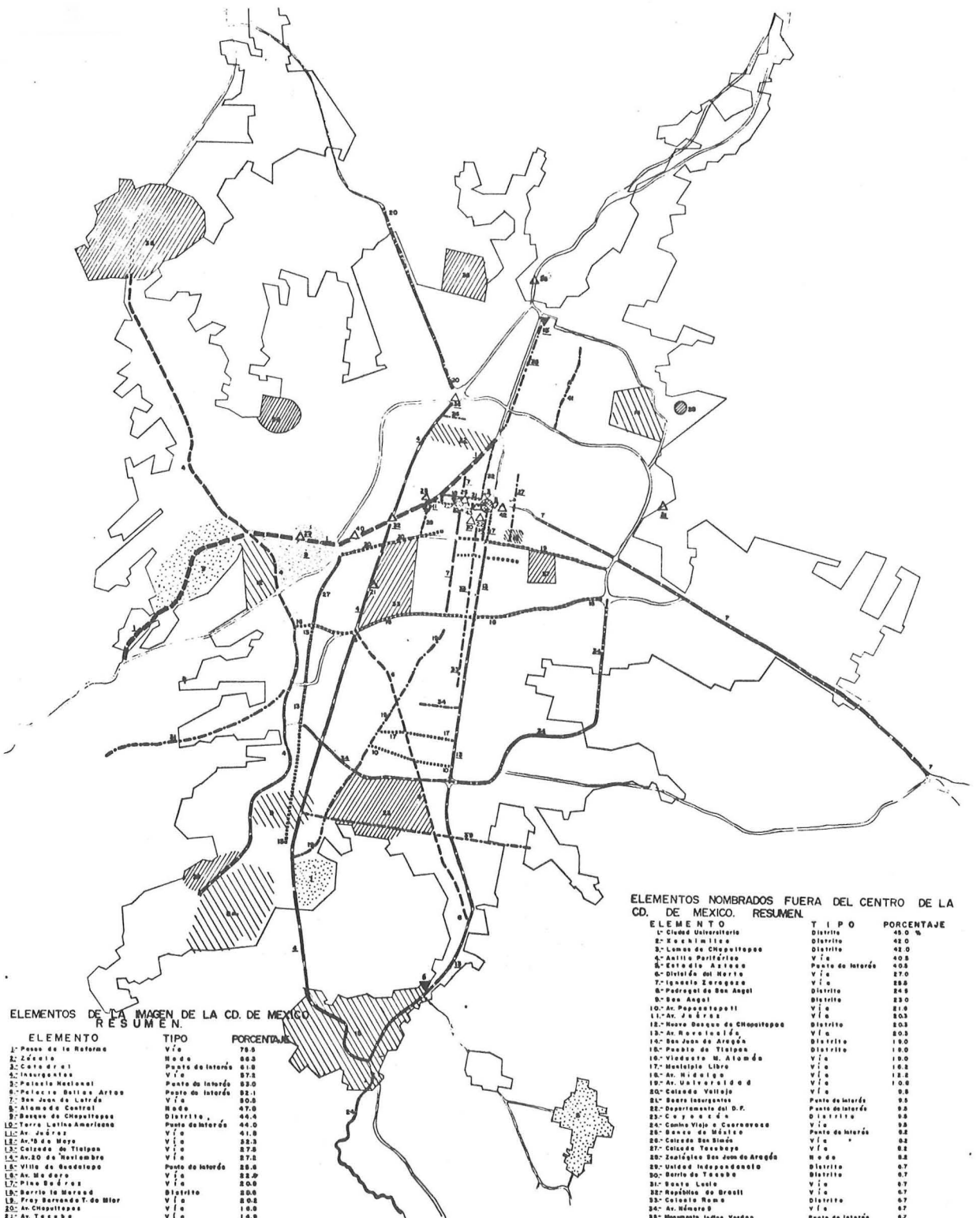
The Mexico sample was sufficiently large that it could be divided along several dimensions. Two of these dimensions yielded roughly equal numbers in the two halves when the sample was split: socio-economic level and residential location.

Dividing by socio-economic level yielded the maps shown in Figures 16 and 18 for the city and center images of the upper socio-economic level, and Figures 17 and 19 for the lower.

Socio-Economic Level.

Of the five most frequently indicated elements in the city maps, four are again identical for both socio-economic levels. The Cathedral which occupies position "4" in the upper stratum is No. 18 in the lower;

Figure 14. Point imagery of the entire city of Mexico,
all subjects.



**ELEMENTOS DE LA IMAGEN DE LA CD. DE MEXICO
RESUMEN**

ELEMENTO	TIPO	PORCENTAJE
1- Puntos de la Reforma	Vía	75.0
2- Zócalo	Nada	0.0
3- Catedral	Punto de interés	0.10
4- Insurgentes	Vía	0.75
5- Palacio Nacional	Punto de interés	0.20
6- Palacio de Bellas Artes	Punto de interés	0.21
7- San Juan de Letrán	Vía	0.05
8- Alameda Central	Nada	0.70
9- Paseo de Chapultepec	Distrito	0.40
10- Torre Latinoamericana	Punto de interés	0.40
11- Ar. Juárez	Vía	0.10
12- Ar. de Mayo	Vía	0.20
13- Calles de Tlalpa	Vía	0.75
14- Ar. 20 de Noviembre	Punto de interés	0.25
15- Villa de Guadalupe	Vía	0.20
16- Ar. Méndez	Vía	0.20
17- Pina Bóris	Distrito	0.05
18- Barrio la Merced	Vía	0.05
19- Pray Barroada T. de Mar	Vía	0.10
20- Ar. Chapultepec	Vía	0.10
21- Ar. Toluca	Distrito	0.10
22- Unidad Nacional Tlatelolco	Punto de interés	0.10
23- Cerros Central	Punto de interés	0.10
24- El Caballito	Punto de interés	0.10
25- L. de Chapultepec	Vía	0.10
26- Ar. Revolución	Vía	0.10
27- Ar. de Cienfuegos	Vía	0.10
28- Ar. Bazar	Punto de interés	0.10
29- Museo de Antropología	Punto de interés	0.10
30- Puerto de Liverpool	Punto de interés	0.10
31- Aeropuerto	Punto de interés	0.10
32- Monumento a Cuauhtémoc	Vía	0.10
33- Calle 5 de Febrero	Vía	0.10
34- Calle Chapultepec	Vía	0.10
35- Calle Guadalupe	Punto de interés	0.10
36- Monumento a la Rosa	Punto de interés	0.10

**ELEMENTOS NOMBRADOS FUERA DEL CENTRO DE LA
CD. DE MEXICO. RESUMEN**

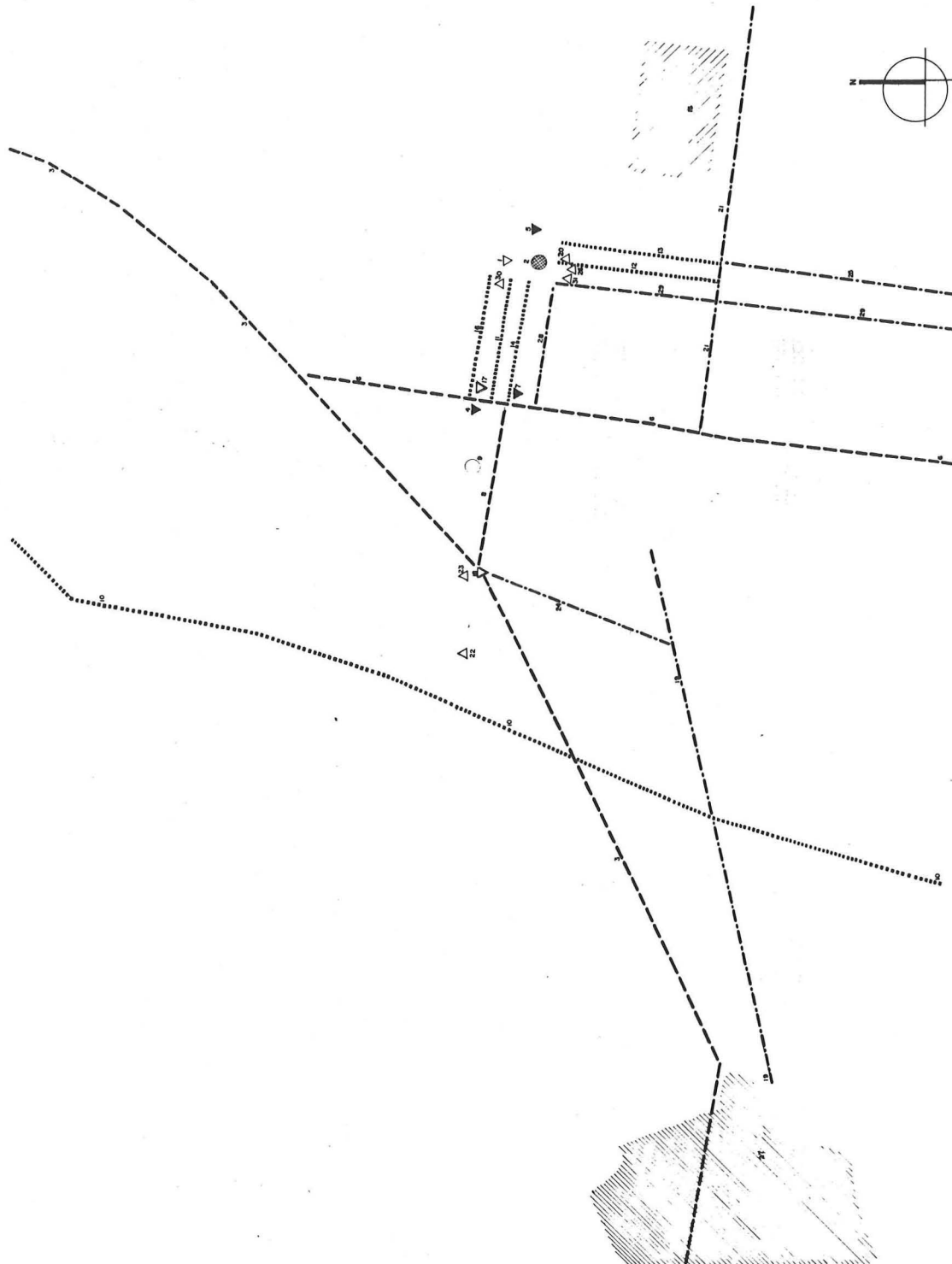
ELEMENTO	TIPO	PORCENTAJE
1- Ciudad Universitaria	Distrito	45.0
2- Xochimilco	Distrito	45.0
3- Lago de Chapultepec	Vía	45.0
4- Antio. Panfiteros	Punto de interés	45.0
5- Estadio Azteca	Vía	45.0
6- Diferencia del Norte	Distrito	45.0
7- Ignacio Zaragoza	Vía	45.0
8- Padregal de San Angel	Distrito	45.0
9- San Angel	Distrito	45.0
10- Ar. Chapultepec II	Vía	45.0
11- Ar. Juárez	Vía	45.0
12- Nuevo Quince de Chapultepec	Distrito	45.0
13- Ar. Revolución	Vía	45.0
14- San Juan de Aragón	Distrito	45.0
15- Pueblo de Tlalpa	Distrito	45.0
16- Vindasta M. Alameda	Vía	45.0
17- Hospital Libre	Vía	45.0
18- Ar. Méndez	Vía	45.0
19- Ar. Universidad	Vía	45.0
20- Calles Vallarta	Vía	45.0
21- Santa Insurgentes	Punto de interés	45.0
22- Departamento del D.F.	Punto de interés	45.0
23- C. y C. de México	Distrito	45.0
24- Camino Viejo a Cuernavaca	Vía	45.0
25- Banco de México	Punto de interés	45.0
26- Calles de San Blas	Vía	45.0
27- Calles de Toluca	Vía	45.0
28- Zoológico San Juan de Aragón	Nada	45.0
29- Unidad Independencia	Distrito	45.0
30- Barrio de Tlalpa	Distrito	45.0
31- Santa Lucía	Vía	45.0
32- Hospital de Brasil	Vía	45.0
33- Calles de Roma	Distrito	45.0
34- Ar. Número 5	Vía	45.0
35- Monumento Indes. Vardas	Punto de interés	45.0
36- Ciudad Bolívar	Distrito	45.0
37- Calles de Balboa	Distrito	45.0
38- Ciudad Politécnica	Distrito	45.0
39- Calles de Toluca	Vía	45.0
40- Calles de Toluca	Punto de interés	45.0
41- Calles de Toluca	Vía	45.0
42- Museo de Historia	Punto de interés	45.0
43- Calle 10 de Septiembre	Vía	45.0



0 1 2 3 4
KILOMETROS

ESCALA GRAFICA

Figure 15. Point imagery of the center of Mexico,
all subjects.



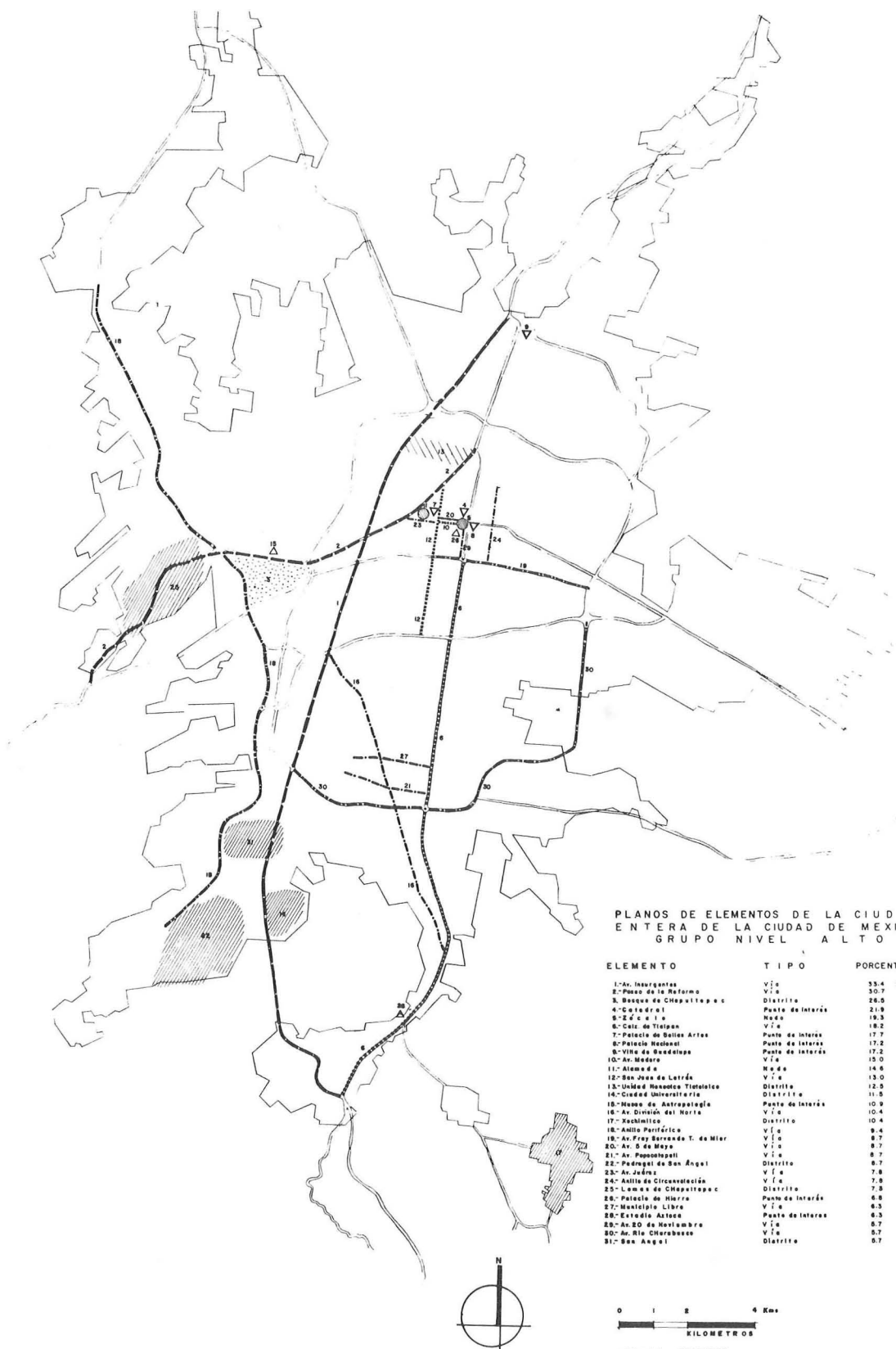
ELEMENTOS DE LA IMAGEN DEL CENTRO DE LA CD. DE MEXICO R E S U M E N

ELEMENTO	TIPO	PORCENTAJE
1-Camión de México.	Punto de Interés	18.30
2-Zoo.	Via	5.10
3-Paseo de la Reforma.	Punto de Interés	4.80
4-Centro Histórico.	Punto de Interés	4.80
5-Pedra Neolítica.	Punto de Interés	4.80
6-San Juan de Letrán.	Punto de Interés	4.80
7-Paseo de la Reforma.	Punto de Interés	4.80
8-Avenida de la Reforma.	Punto de Interés	4.80
9-Avenida Central.	Punto de Interés	4.80
10-Avenida de la Reforma.	Punto de Interés	4.80
11-Avenida de la Reforma.	Punto de Interés	4.80
12-Avenida de la Reforma.	Punto de Interés	4.80
13-Avenida de la Reforma.	Punto de Interés	4.80
14-Avenida de la Reforma.	Punto de Interés	4.80
15-Avenida de la Reforma.	Punto de Interés	4.80
16-Avenida de la Reforma.	Punto de Interés	4.80
17-Avenida de la Reforma.	Punto de Interés	4.80
18-Avenida de la Reforma.	Punto de Interés	4.80
19-Avenida de la Reforma.	Punto de Interés	4.80
20-Avenida de la Reforma.	Punto de Interés	4.80
21-Avenida de la Reforma.	Punto de Interés	4.80
22-Avenida de la Reforma.	Punto de Interés	4.80
23-Avenida de la Reforma.	Punto de Interés	4.80
24-Avenida de la Reforma.	Punto de Interés	4.80
25-Avenida de la Reforma.	Punto de Interés	4.80
26-Avenida de la Reforma.	Punto de Interés	4.80
27-Avenida de la Reforma.	Punto de Interés	4.80
28-Avenida de la Reforma.	Punto de Interés	4.80
29-Avenida de la Reforma.	Punto de Interés	4.80
30-Avenida de la Reforma.	Punto de Interés	4.80
31-Avenida de la Reforma.	Punto de Interés	4.80



ESCALA GRAFICA

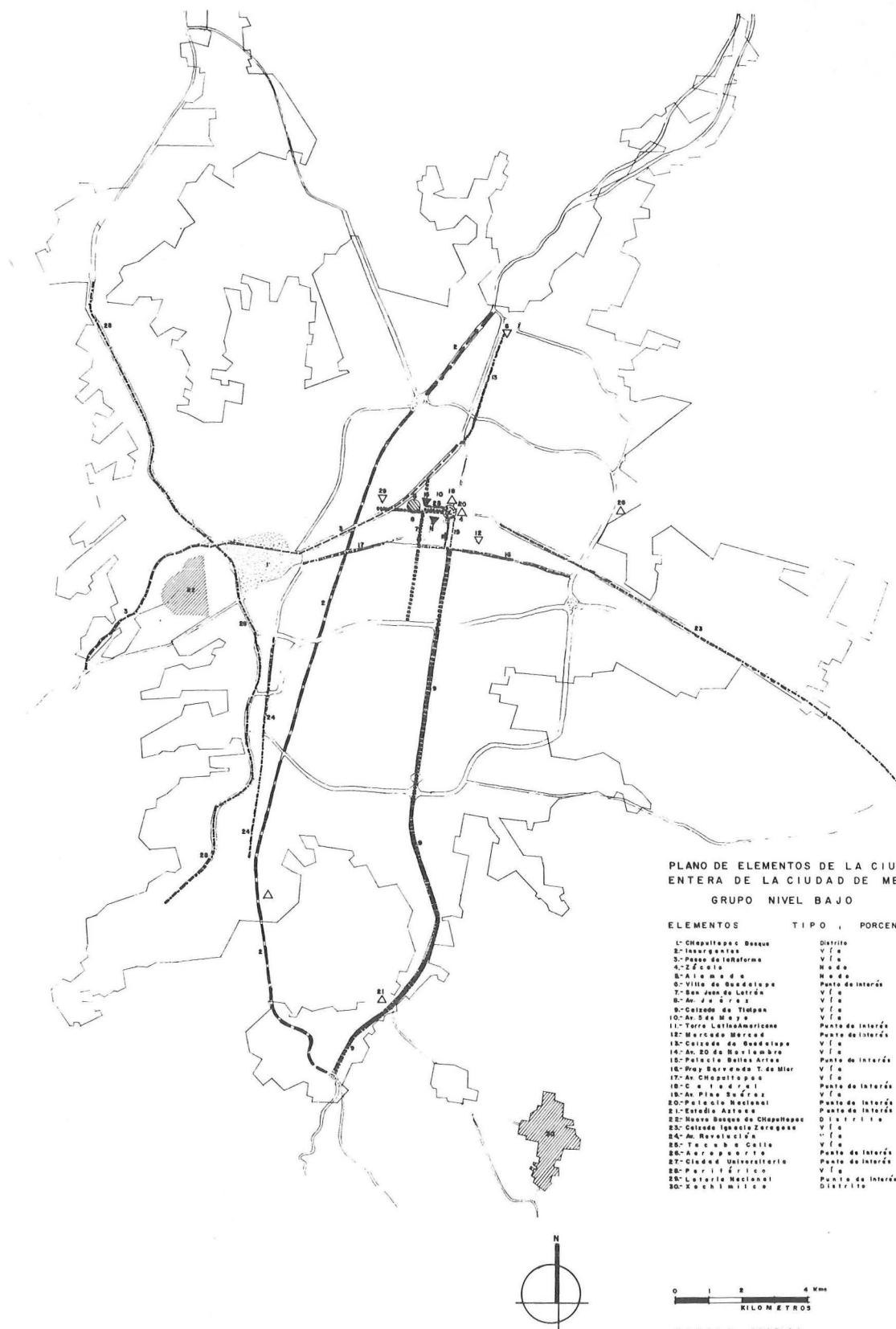
Figures 16 and 17. Point imagery of the entire city of Mexico,
with subjects divided into high and low socio-economic levels.



PLANOS DE ELEMENTOS DE LA CIUDAD
ENTERA DE LA CIUDAD DE MEXICO
GRUPO NIVEL A L T O

ELEMENTO	T I P O	PORCENTAJE
1-Ar. Insurgentes	Via	33.4 %
2-Paseo de la Reforma	Via	30.7
3-Boulevard Chapultepec	Distribución	26.9
4-Catedral	Punto de Interés	21.9
5-Zócalo	Nudo	19.3
6-Calle de Tlaxcala	Via	18.2
7-Palacio de Bellas Artes	Punto de Interés	17.7
8-Palacio Nacional	Punto de Interés	17.2
9-Villa de Guadalupe	Punto de Interés	17.2
10-Ar. Medrano	Via	15.0
11-Alameda	Nudo	14.9
12-San Juan de Letrán	Via	13.0
13-Unidad Nacional Tlatelco	Distribución	12.5
14-Ciudad Universitaria	Distribución	11.5
15-Nuevo de Anáhuac	Punto de Interés	10.9
16-Av. División del Norte	Via	10.4
17-Académico	Distribución	10.4
18-Arte y Arquitectura	Via	9.4
19-Ar. Fray Servando T. de Mier	Via	8.7
20-Ar. 5 de Mayo	Via	8.7
21-Ar. Popocatepetal	Via	8.7
22-Pedregal de San Ángel	Distribución	8.7
23-Ar. Juárez	Via	7.8
24-Arte de Circulación	Via	7.8
25-Loma de Chapultepec	Distribución	7.8
26-Palacio de Minería	Punto de Interés	6.9
27-Municipio Libre	Via	6.3
28-Estadio Azteca	Punto de Interés	6.3
29-Ar. 20 de Noviembre	Via	5.7
30-Ar. Río Churubusco	Via	5.7
31-San Ángel	Distribución	5.7





PLANO DE ELEMENTOS DE LA CIUDAD
ENTERA DE LA CIUDAD DE MEXICO
GRUPO NIVEL BAJO

ELEMENTOS	TIPO	PORCENTAJE
1-Chapultepec Bosque	Distrito	40.0%
2-Insurgentes	Vía	31.5
3-Paseo de la Reforma	Vía	29.0
4-2 de Julio	Mancha	28.5
5-Avenida	Mancha	23.0
6-Villa de Guadalupe	Punto de Interés	22.4
7-San Juan de Letrán	Vía	18.0
8-Avenida Juárez	Vía	17.5
9-Calle de la Tlacuapala	Vía	16.8
10-Avenida de Mayo	Vía	16.4
11-Tierra Llatina Americana	Punto de Interés	16.0
12-Mercado Merced	Punto de Interés	14.4
13-Calle de Guadalupe	Vía	12.0
14-Avenida de la Revolución	Vía	10.9
15-Palacio de Bellas Artes	Punto de Interés	10.9
16-Museo Nacional de Historia Natural	Vía	10.9
17-Avenida Chapultepec	Vía	9.9
18-Calle de la Américas	Punto de Interés	8.4
19-Avenida de la Américas	Vía	8.4
20-Palacio Nacional	Punto de Interés	8.4
21-Estadio Azteca	Punto de Interés	8.4
22-Nuevo Bosque de Chapultepec	Mancha	6.9
23-Calle de la Américas	Vía	6.9
24-Avenida de la Américas	Vía	6.9
25-Torre de la Américas	Vía	6.9
26-Aeropuerto	Punto de Interés	6.0
27-Ciudad Universitaria	Punto de Interés	5.5
28-Parque de la Américas	Vía	5.5
29-Letaría Nacional	Punto de Interés	5.5
30-Avenida de la Américas	Distrito	5.5

0 1 2 4 Km
KILOMETROS

ESCALA GRAFICA

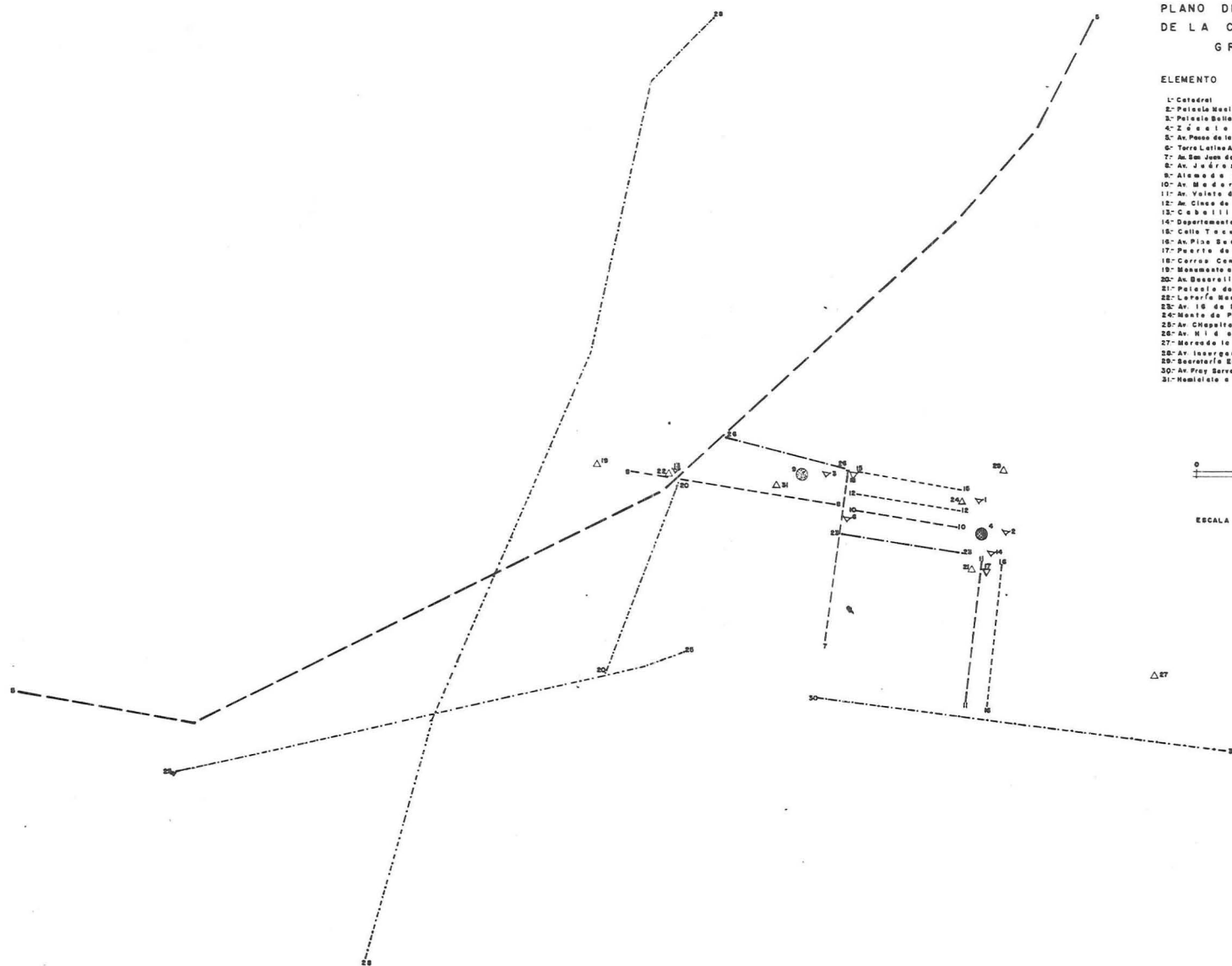
Figures 18 and 19. Point imagery of the center of Mexico,
with subjects divided into high and low socio-economic levels.

PLANO DE ELEMENTOS DEL CENTRO
DE LA CIUDAD DE MEXICO
GRUPO NIVEL ALTO

ELEMENTO	T I P O	PORCENTAJE
1- Catedral	Punto de Interés	72 %
2- Palacio Nacional	Punto de Interés	60
3- Palacio de Bellas Artes	Punto de Interés	51
4- Zócalo	Medio	57
5- Av. Paseo de la Reforma	Vía	55
6- Torre Latinoamericana	Punto de Interés	51
7- Av. San Juan de Letrán	Vía	48
8- Av. Juárez	Vía	30
9- Alameda Central	Medio	29
10- Av. Madero	Vía	27
11- Av. Valente de Noviembre	Vía	26
12- Av. Gloriosa de Mayo	Vía	21
13- Ceballos	Punto de Interés	20
14- Departamento del D.F.	Punto de Interés	19
15- Calle Teófilo	Vía	19
16- Av. Pío de los Ríos	Vía	14
17- Puerto de Liverpool	Punto de Interés	4
18- Correo Central	Punto de Interés	3
19- Monumento a la Revolución	Punto de Interés	2
20- Av. Bucarelli	Vía	0.9
21- Palacio de Hierro	Punto de Interés	0.8
22- Luperón Nacional	Punto de Interés	0.6
23- Av. 16 de Septiembre	Vía	7.7
24- Monte de Piedad	Punto de Interés	7.7
25- Av. Chapultepec	Vía	7.7
26- Av. Hidalgo	Vía	7.7
27- Mercado la Merced	Punto de Interés	6.7
28- Av. Insurgentes	Vía	6.7
29- Secretaría Educación N.	Punto de Interés	6.6
30- Av. Fray Servando T. de M.	Vía	6.2
31- Hospital de Juárez	Punto de Interés	5.2

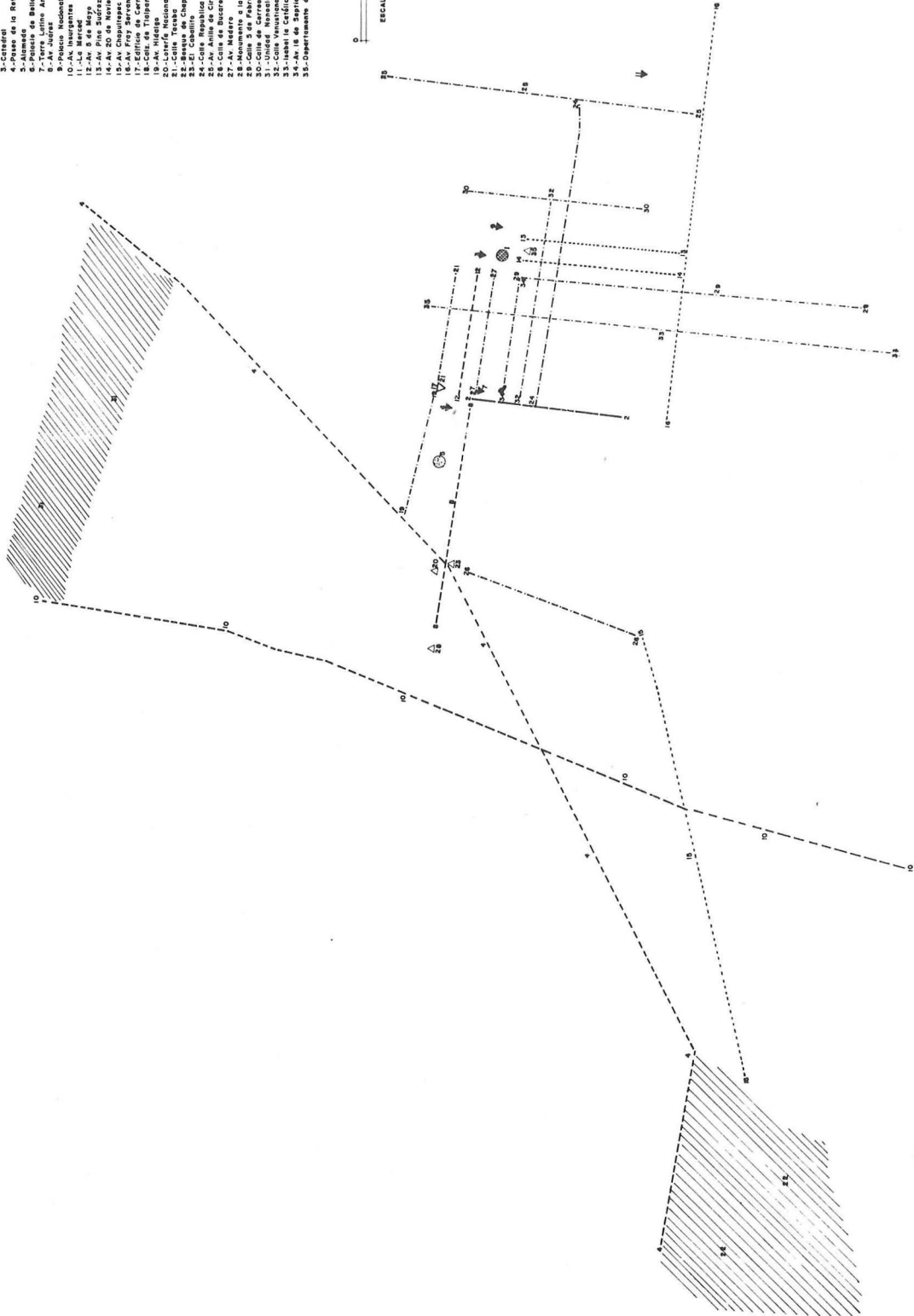


ESCALA GRAFICA



PLANO DE ELEMENTOS DEL CENTRO
DE LA CIUDAD DE MEXICO
GRUPO NIVEL BAJO

ELEMENTO	T I P O	PORCENTAJE
1-Zócalo	Nudo	54.5 %
2-San Juan de Letrán	Vía	50.0
3-Catedral	Punto de Interés	48.4
4-Plaza de la Reforma	Nudo	48.4
5-Palacio de Bellas Artes	Punto de Interés	39.0
6-Torre Latino Americana	Punto de Interés	38.2
7-Palacio Nacional	Punto de Interés	35.6
8-Palacio Nacional	Punto de Interés	32.5
9-Palacio Nacional	Vía	30.8
10-Arco Insurgentes	Vía	25.8
11-Arco Insurgentes	Vía	22.5
12-Arco Insurgentes	Vía	17.5
13-Arco Insurgentes	Vía	16.7
14-Arco Insurgentes	Vía	13.8
15-Arco Insurgentes	Vía	11.7
16-Arco Insurgentes	Punto de Interés	10.8
17-Edificio de Correos	Punto de Interés	9.2
18-Edificio de Correos	Punto de Interés	8.35
19-Arco Insurgentes	Vía	7.5
20-Letras Nacionales	Punto de Interés	7.5
21-Calle de Chapultepec	Distrito	5.6
22-Parque de Chapultepec	Distrito	5.6
23-Parque de Chapultepec	Distrito	5.6
24-Parque de Chapultepec	Distrito	5.6
25-Arco Insurgentes	Punto de Interés	5.6
26-Arco Insurgentes	Punto de Interés	5.6
27-Arco Insurgentes	Punto de Interés	5.6
28-Arco Insurgentes	Punto de Interés	5.6
29-Arco Insurgentes	Punto de Interés	5.6
30-Arco Insurgentes	Punto de Interés	5.6
31-Arco Insurgentes	Punto de Interés	5.6
32-Arco Insurgentes	Punto de Interés	5.6
33-Arco Insurgentes	Punto de Interés	5.6
34-Arco Insurgentes	Punto de Interés	5.6
35-Arco Insurgentes	Punto de Interés	5.6



the Alameda which occupies position "5" in the lower is No. 11 in the upper. We have no explanation for this. It is interesting to note that Chapultepec Park which is No. 1 for the lower levels is still No. 3 for the upper; there is, therefore, no indication in the image of the city of the hypothesized lower class "takeover" of the park.

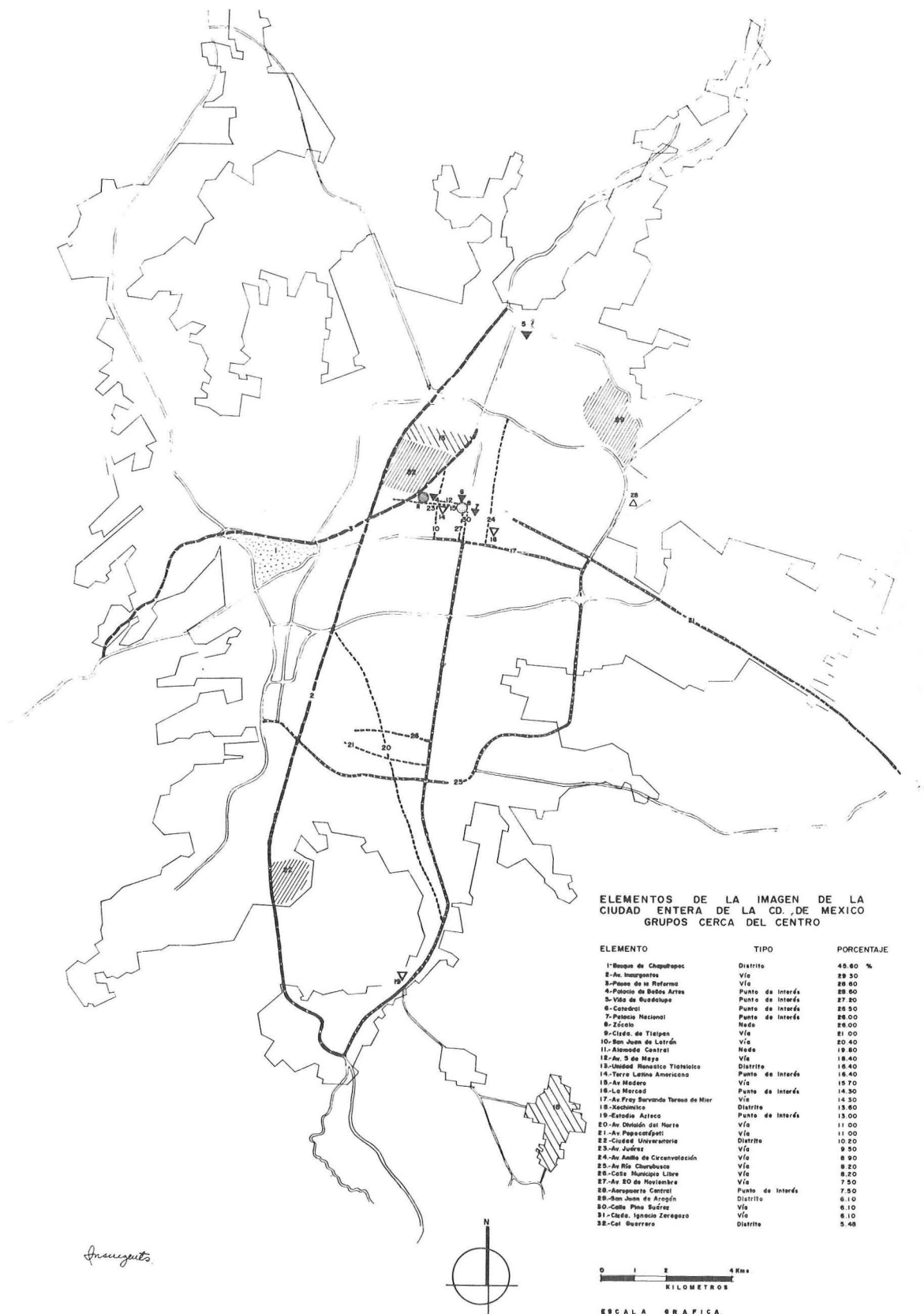
An almost equal number of elements were cited by both groups and a precisely equal number, (15), of paths. Apparently, the fact that members of the lower classes less frequently drive cars does not decrease the significance of the city's street names for them. There are, however, a few elements of interest that appear on one map and not in the other. Unidad Nonoalco-Tlaloteloco, a middle-class "renewal" of a formerly lower class area is indicated only in the nivel alto image, as are University City, and the upper-class Pedregal - San Angel areas. The area east of Avenida Pino Suarez, still predominantly lower class, displays three significant non-path elements in the lower class map (other than Villa Guadalupe) and only one in the "upper."

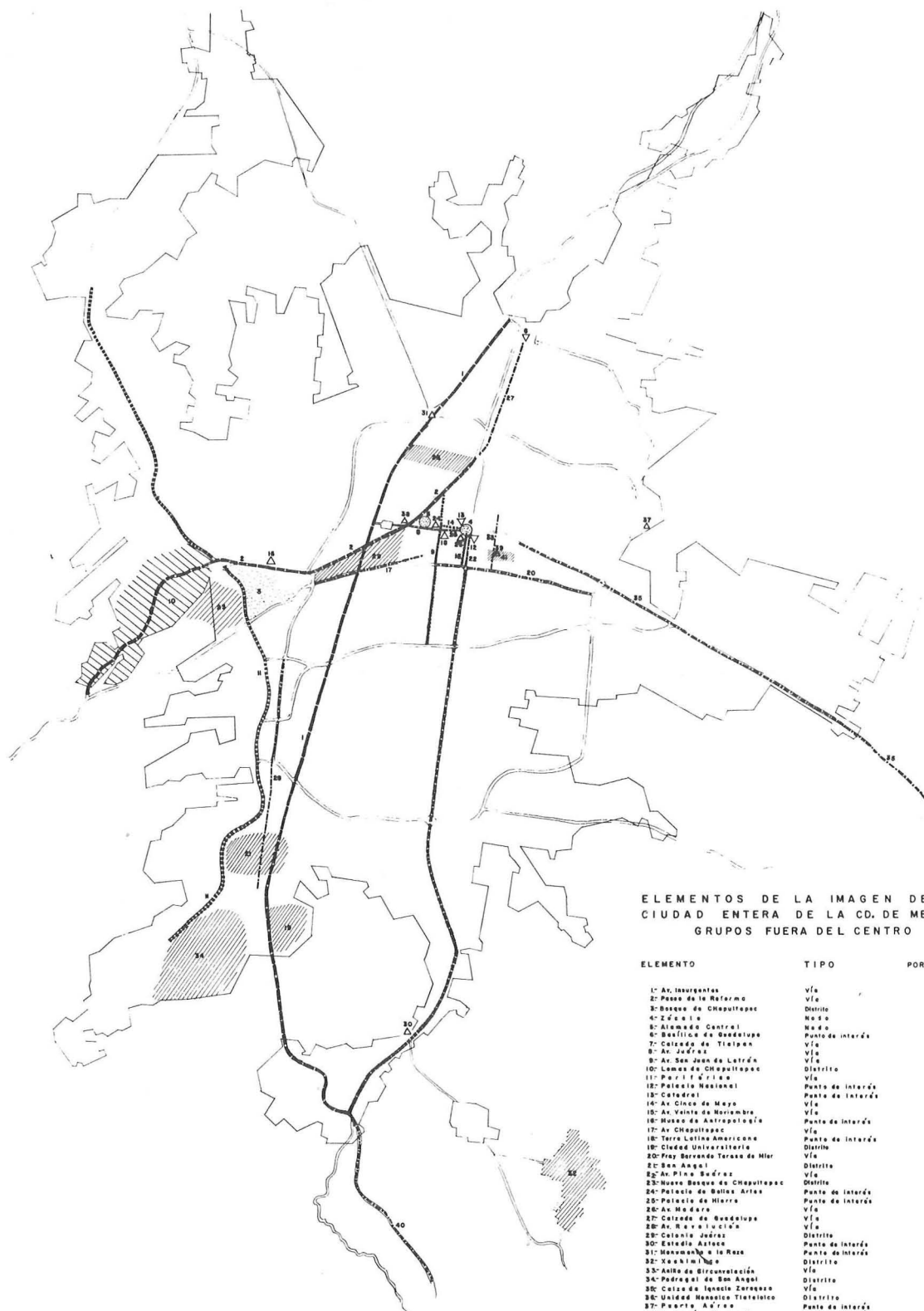
As to the images of the center, these differ in three major respects: first, more elements (paths and landmarks) are indicated east of Avenida Pino Suarez by the lower levels. Second, Chapultepec Park, which was high on the list of elements for both groups in city imagers, drops markedly in frequency as an element in the lower-class map of the center, and disappears altogether among the upper-class respondents. Inexplicably, Unidad Nonoalco - Tlaloteloco, which was significant to upper-class respondents as part of the city is significant to lower-class respondents as an element of the center. Not quite so inapplicable is the fact that the lower class image of the center contains more elements and half again as many paths as the upper. If one recognizes the area north of Calle Republica de Uruguay and east of Pino Suarez as a part of the Conceptual Center but an area now avoided by "la gente buena," this result seems reasonable. Similarly, the thoroughfares are important to pedestrians engaged in commerce and marketing, but a nightmare for motor vehicles. Many residents regardless of class, are likely to avoid trying to take private automobiles into the center during much of the day. Thus, the fact that one does not possess an automobile ought not to decrease one's familiarity with the path system in the traditional center. That public surface transportation is extremely crowded and moves at a crawl means that much of the local traffic moves on foot - an experimental leveller of socio-economic differences.

Residential location

Examining the city maps of México, the first impression is that respondents living far from the center of the city have somewhat "larger" images of the city (including more elements outside a two-mile radius of the Zócalo) than do respondents living close to the center. The total number of items indicated with sufficient frequency to be included in the map is

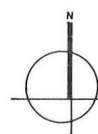
Figures 20 and 21. Point imagery of the entire city of Mexico,
with subjects divided by place of residence (central or peripheral).





ELEMENTOS DE LA IMAGEN DE LA CIUDAD ENTERA DE LA CD. DE MEXICO GRUPOS FUERA DEL CENTRO

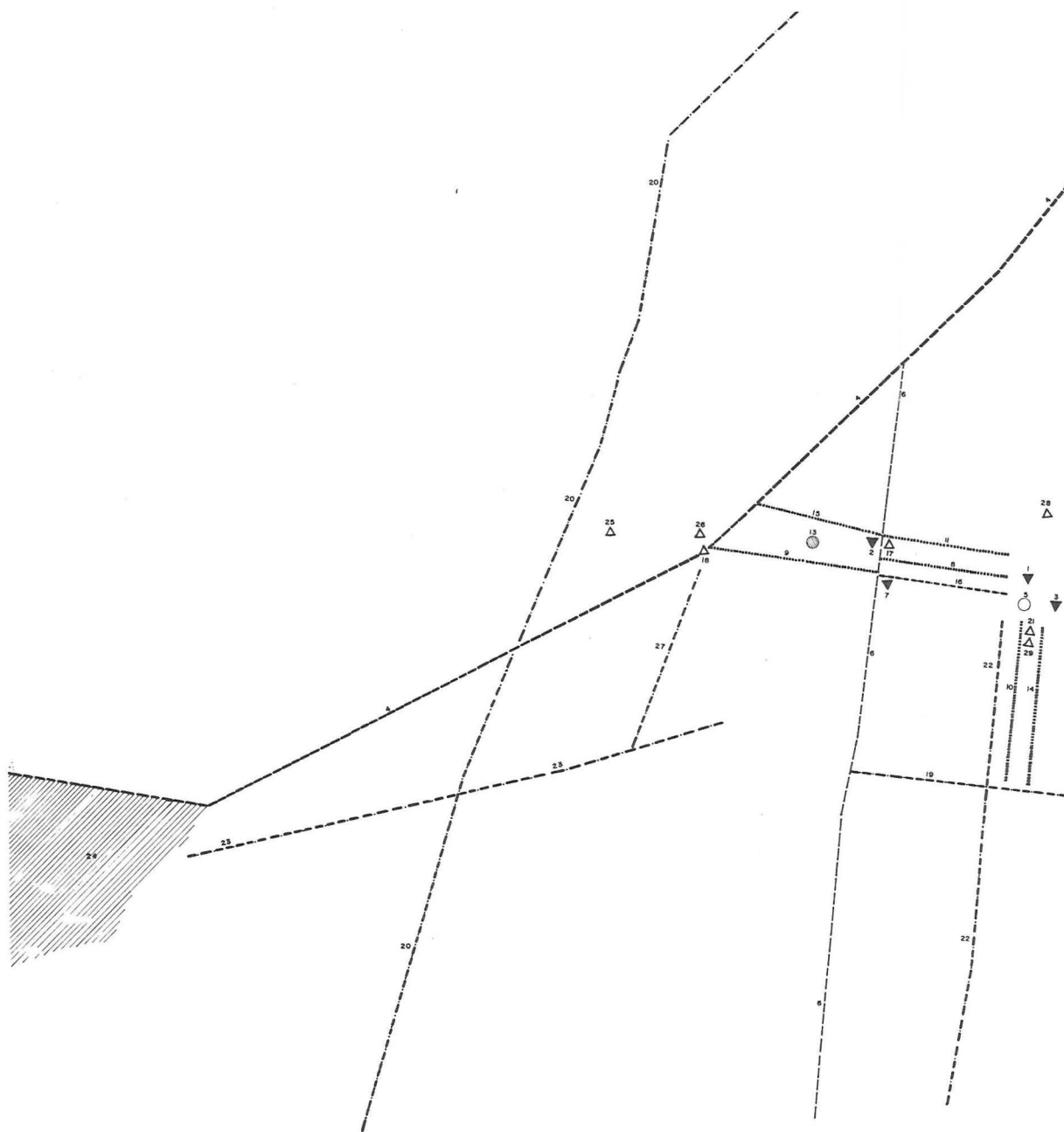
ELEMENTO	TIPO	PORCENTAJE
1- Av. Insurgentes	Vía	48.5 %
2- Paseo de la Reforma	Vía	44.5
3- Bosque de Chapultepec	Distrito	33.5
4- Zona 1	Mano	27.5
5- Alameda Central	Mano	26.5
6- Basílica de Guadalupe	Punto de interés	22.5
7- Calzada de Tlalpan	Vía	22.5
8- Av. Juárez	Vía	21.2
9- Av. San Juan de Letrán	Vía	19.5
10- Lomas de Chapultepec	Distrito	17.8
11- Parí i e r i s a	Vía	17.8
12- Palacio Nacional	Punto de interés	15.8
13- Catedral	Punto de interés	13.0
14- Av. Cinco de Mayo	Vía	13.0
15- Av. Venito de Noviembre	Vía	13.0
16- Museo de Antropología	Punto de interés	12.4
17- Av. Chapultepec	Vía	11.1
18- Torre Latina Americana	Punto de interés	10.6
19- Ciudad Universitaria	Distrito	10.6
20- Pray Barrodo Terasa de Mier	Vía	10.0
21- San Ángel	Distrito	8.45
22- Av. Pina Suárez	Vía	8.85
23- Nuevo Bosque de Chapultepec	Distrito	8.65
24- Palacio de Bellas Artes	Punto de interés	8.5
25- Palacio de Mirra	Punto de interés	7.1
26- Av. Madero	Vía	7.1
27- Calzada de Guadalupe	Vía	7.1
28- Av. Guadalupe	Vía	7.1
29- Colonia Juárez	Distrito	7.1
30- Estadio Azteca	Punto de interés	6.5
31- Monumento a la Raza	Punto de interés	6.5
32- Xochimilco	Distrito	6.5
33- Albo de Circunvalación	Vía	6.5
34- Pedregal de San Ángel	Distrito	6.5
35- Calza de Ignacio Zaragoza	Vía	5.9
36- Unidad Mexicana Tlatelolco	Distrito	5.9
37- Puente Juárez	Punto de interés	5.9
38- Loma de la Nacional	Punto de interés	5.9
39- Mercado de la Merced	Punto de interés	5.9
40- Autopista a Cuernavaca	Vía	5.3
41- La Merced (barrio)	Distrito	5.3



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KILOMETROS

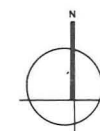
ESCALA GRAFICA

Figures 22 and 23. Point imagery of the center of Mexico, with subjects divided by place of residence (central or peripheral).



PLANO DE ELEMENTOS DE LA IMAGEN
DEL CENTRO DE LA CD. DE MEXICO
GRUPOS CERCA DEL CENTRO

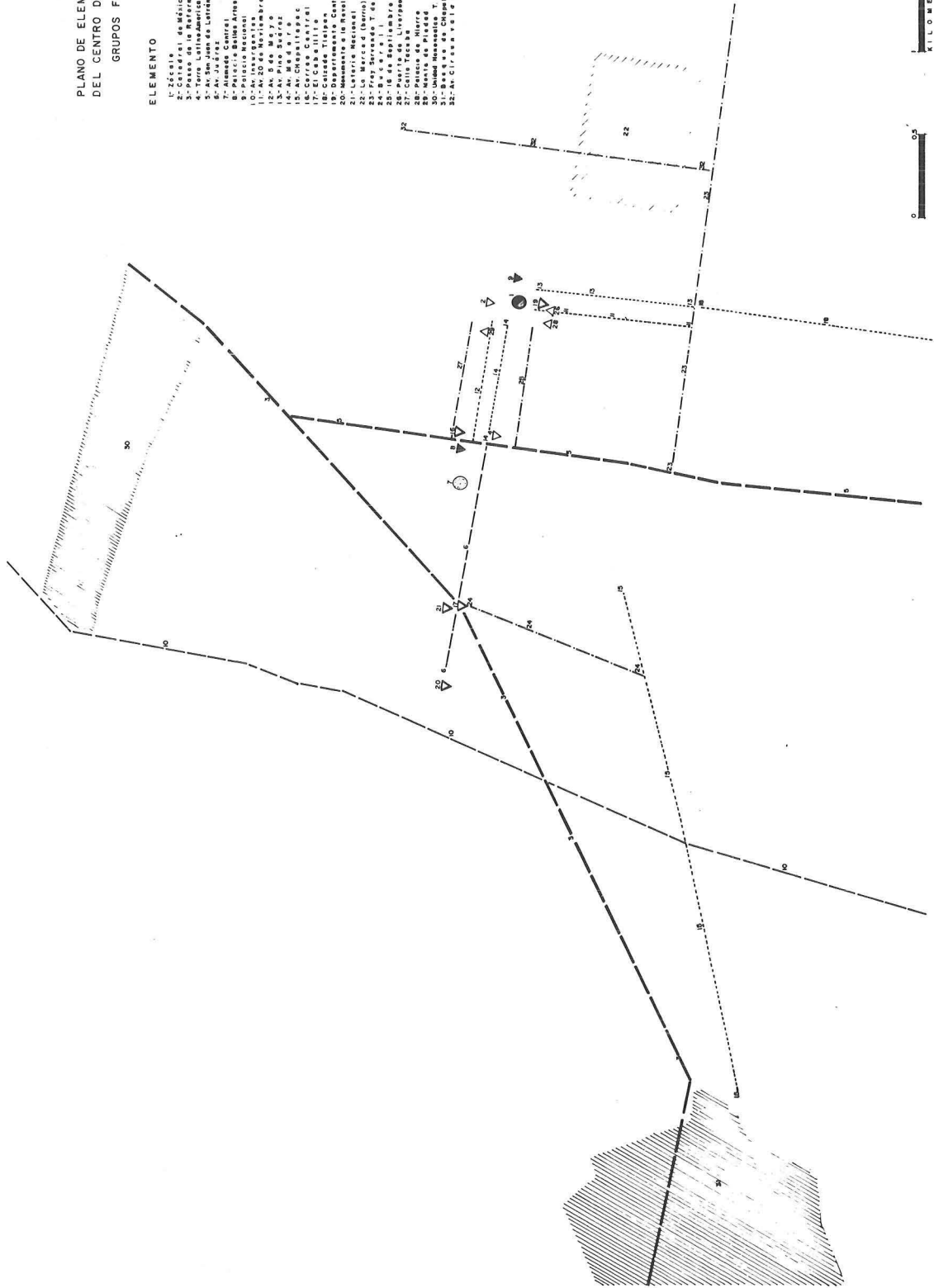
ELEMENTO	T I P O	PORCENTAJE
1: Catedral	Punto de Interés	43.7 %
2: Palacio de Bellas Artes	Punto de Interés	44.7
3: Palacio Nacional	Punto de Interés	43.7
4: Paseo de la Reforma	V í a	40.5
5: Zócalo	Nodo	36.8
6: Av. San Juan de Letrán	V í a	30.6
7: Terra Latina Americana	Punto de Interés	28.6
8: Calle de San Mateo	V í a	25.8
9: Av. Juárez	V í a	20.2
10: Av. 20 de Noviembre	V í a	20.2
11: Calle de Tacuba	V í a	19.5
12: La Merced	Punto de Interés	16.7
13: Alameda Central	Nodo	19.9
14: Calle Pina Suárez	V í a	14.9
15: Av. Hidalgo	V í a	14.0
16: Av. Francisco Madero	V í a	12.3
17: Edificio de Correos	Punto de Interés	12.3
18: El Caballito	Punto de Interés	12.3
19: Pray Salvador T. de Mier	V í a	9.7
20: Av. Intersección	V í a	9.8
21: Departamento del D.F.	Punto de Interés	7.9
22: Calle S de Febrero	V í a	7.9
23: Av. Chapultepec	V í a	7.0
24: Bosque de Chapultepec	Distrito	7.0
25: Monumento a la Revolución	Punto de Interés	5.25
26: Lateral Nacional	Punto de Interés	5.25
27: Calle Bucarelli	V í a	5.25
28: Secretaría Educación R	Punto de Interés	5.25
29: Puerto de Liverpool	Punto de Interés	5.25



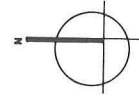
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ESCALA GRAFICA KILOMETROS

PLANO DE ELEMENTOS DE LA IMAGEN
DEL CENTRO DE LA CD. DE MEXICO
GRUPOS FUERA DEL CENTRO

ELEMENTO	T I P O	PORCENTAJE
1- Zócalo	Rede	38.7
2- Catedral de México	Punto de Mirada	62.5
3- Paseo de la Reforma	Via	35.5
4- Anillo Periférico	Via	30.0
5- An. San Juan de Letrán	Via	48.2
6- An. Juárez	Via	48.2
7- An. Chapultepec	Via	48.2
8- Policia Nacional	Punto de Mirada	45.8
9- Palacio Nacional	Punto de Mirada	45.8
10- An. 20 de Noviembre	Via	23.5
11- An. 20 de Noviembre	Via	23.5
12- An. 20 de Noviembre	Via	23.5
13- An. 20 de Noviembre	Via	23.5
14- An. 20 de Noviembre	Via	23.5
15- An. Chapultepec	Via	23.5
16- An. Chapultepec	Via	23.5
17- An. Chapultepec	Via	23.5
18- An. Chapultepec	Via	23.5
19- An. Chapultepec	Via	23.5
20- An. Chapultepec	Via	23.5
21- An. Chapultepec	Via	23.5
22- An. Chapultepec	Via	23.5
23- An. Chapultepec	Via	23.5
24- An. Chapultepec	Via	23.5
25- An. Chapultepec	Via	23.5
26- An. Chapultepec	Via	23.5
27- An. Chapultepec	Via	23.5
28- An. Chapultepec	Via	23.5
29- An. Chapultepec	Via	23.5
30- An. Chapultepec	Via	23.5
31- An. Chapultepec	Via	23.5
32- An. Chapultepec	Via	23.5



0 0.5 1 1.5 Kms.
KILOMETROS
ESCALA GRAFICA



also larger for subjects outside the center.

One might expect that groups living in the suburbs would have a somewhat less detailed image of the center than those living closer. This is not the case; in fact, slightly the contrary. If knowledge of the center indicates the "pull" or relative significance of the center for any individual it is clearly just as attractive or important to those living "far out" as to those close in."

Boundaries.

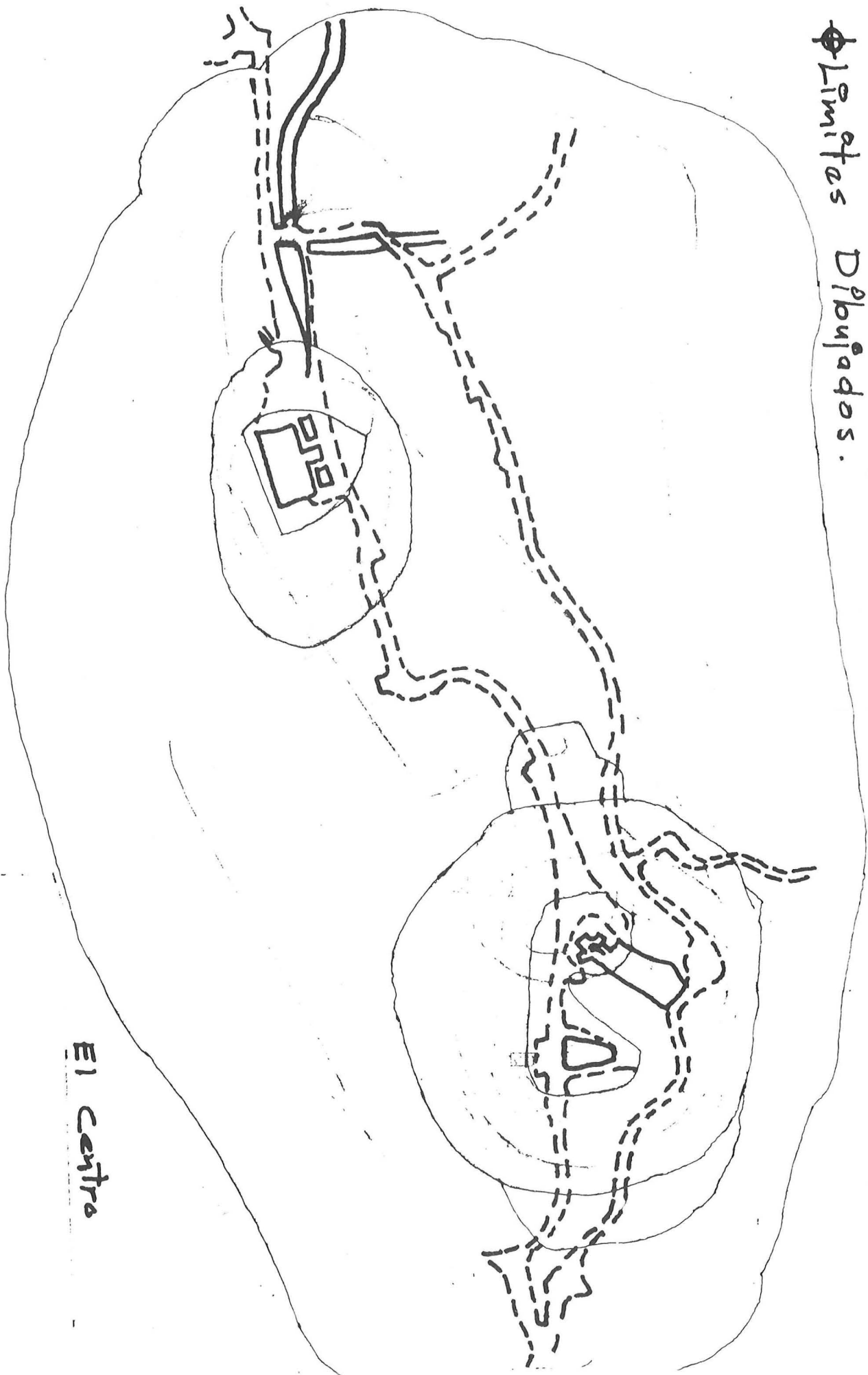
By combining all of the drawn and named boundaries (some interviewees indicated the names of bordering streets or depicted boundaries in some other way) for a given place (city, center, or colonia) on a single composite map, it was possible to construct "exterior" and "interior" envelopes indicating the largest and smallest areas that the place drawn was considered to encompass. These might be called the minimal and maximal conceptual extents of the place; in presenting the composite drawings of these places in Chapter V, we will term them exterior and interior. The exterior is the outside area - the union - by mathematical analogy - included by all the boundaries drawn or otherwise indicated. It is the area that at least one respondent feels is part of the place. The interior intersection - represents that area which all respondents feel is part of the place depicted; in this sense, it is in fact the "heart" of the district. Two maps of Guanajuato, one of the entire city and the other of El Centro, are presented as Figures 24 and 25 to show how a number of drawn boundaries are combined on a single outline map.

Recently, there has been considerable speculation on the number of centers a city has, the extent of the center(s) and its location (or their locations). Some planners have asked whether Guanajuato has one or two centers. Our study revealed three centers and two central areas; one contains a "double center," which, like a double star (if the reader will excuse the analogy from astronomy) is apparent only when the observer takes a close look. With reference to the map of the city of Guanajuato in Chapter II (recall that South is at the top) and the frontispiece,² it seemed reasonable to ask "what is it that differentiates the western central area from the eastern, i.e. why two central areas?"

Informal observation of the behavior of Guanajuato's residents indicates that the eastern center, el Jardin de la Union, is in fact the communications center of the city as well as a transportation node. When telephones are sparse and street addresses unreliable, the best way to contact a person is often to meet him at some well-known location - el Jardin in the case of Guanajuato - and to go from there to one of the several cafes that surround this plaza. Since the Teatro Juarez is there, it is also a cultural center. Some economic exchange takes place, but very much less than in the western central area, where the market is located.

Figure 24. Drawn boundaries of the center
of Guanajuato, combined on a single map.

Limites Dibuñados.



El Centro

Figure 25. Envelopes of the center of
Guanajuato and its "hearts".



LIMITES DIBUJADOS DEL CENTRO DE LA
CIUDAD DE OAXACA, OTO, MEXICO.

CLAVE:
1.-Límite urbano
2.-Límite de la zona
3.-Límite de la zona
4.-Límite de la zona
5.-Límite de la zona

Figure 26. Envelope of the city of
Guanajuato and its heart.



LIMITES DIBUJADOS DE LA CIUDAD ENTERA
DE GUANAJUATO GTO., MEXICO.

CLAVE:
1-Universidad
2-Universidad
3-Universidad
4-Universidad
5-Universidad
6-Universidad

0 0.5 1.0 2.0 km

Under what conditions do multi-centered cities occur in Latin America? At this stage of investigation we can do no more than hypothesize. It is customary to view cities in Latin America as possessing a single dominant center, a view in accord with what Philip II set out to accomplish. But in cities such as Guanajuato, constructed within a topographical context that made it impossible to follow the Code of Philip II, no "focus" was possible. As the object image maps clearly show, a single axis is dominant. Further, it is a walkable city - indeed, it is difficult to negotiate other than on foot - and easy communication among several "bulges" along the axis is therefore possible. The socio-cultural center is thus conceptually separated from the marketing center, but the physical barriers between the two are minimal, and whatever convenience the separation affords outweighs the apparently minimal inconvenience of "commuting" from one to the other.

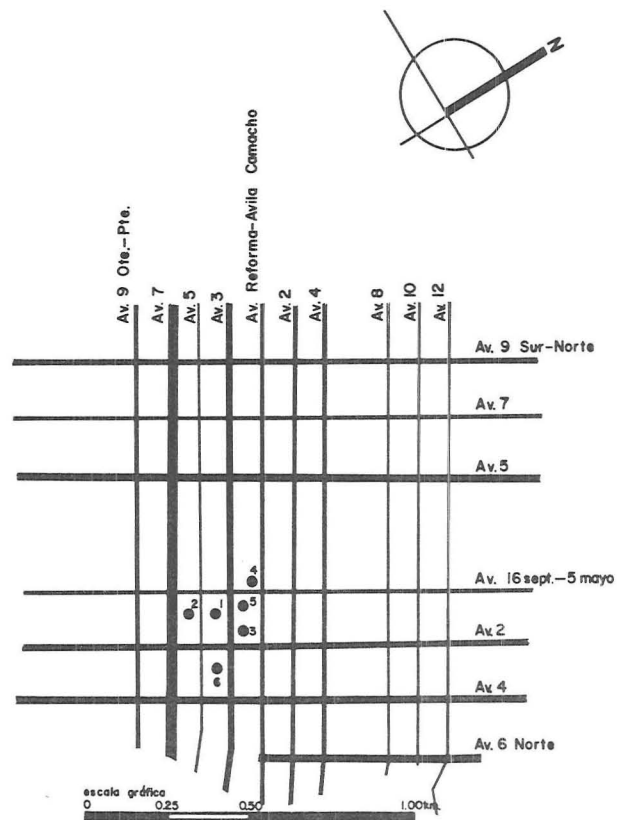
Examining the "drawn limits" of the conceptual center(s) and the conceptual city of Guanajuato makes apparent the discrepancy between the extents of the exteriors (or envelopes) and the interiors (or hearts). But, while the "hearts" of the central limits map very nicely enclose the features we would normally suppose to be of central importance - the market and the Jardin de la Union - Teatro Juarez unit - the city limits map places these just outside the heart. Why the empirical results fail to confirm intuition, and why the "center hearts" are not included with the conceptual "city hearts" are unanswered questions.

Ideally, what we would have liked to obtain were graphically and verbally described boundaries of México, Puebla, and Guanajuato, and of the center and the entire city in each case. What we in fact obtained were graphic descriptions of the boundaries of Guanajuato (center and city), graphic and verbal descriptions of the center of México, and verbal descriptions of the center of Puebla. In only five of the twelve categories of boundary description we hoped to obtain were the numbers of subjects sufficient to yield reasonably reliable results. To a degree, this reflects the perceived difficulty of this part of the inventory; subjects simply found the "boundary" questions hard ones to answer.

For the purpose of mapping verbal responses, termed "named boundaries" or "named limits," the following convention was adopted: since all named limits were streets, the thickness or multiplicity of lines indicating streets represented the number of persons naming that street as a boundary.

The boundedness of Puebla's center, indicates some agreement concerning what streets bound the center to the northwest, southwest, and southeast, but no agreement concerning a boundary to the northeast. Of the boundaries, Avenida 7 Oriente-Poniente, which bounds the Cathedral to the southwest, appears the most clearly defined. It is somewhat easier to extract an "envelope" than a "heart" from a map like this; part of the problem is that when a place or feature is named, it is difficult to determine what part of the place or feature bearing that name is to be included as a boundary.

Figure 27 Summary of verbal responses
limiting the Center of Puebla.



LIMITES NOMBRADOS DEL CENTRO DE LA
CIUDAD DE PUEBLA PUE., MEXICO.

CLAVE:

- 1-Zócalo
- 2-Catedral
- 3-Palacio de Gobierno
- 4-Woolworth
- 5-Palacio Municipal
- 6-Universidad

The same problem exists with the named boundaries of Mexico's center, shown in Figures 28 and 29. The differences in the relative darkness of lines in the two figures results from different total numbers of subjects who responded to the question. There seems to be considerable agreement between the two groups regarding possibilities for conceptual bounds of the center, the main difference being the heavy inclusion of Paseo de la Reforma by subjects living far from the center, and its exclusion by subjects living close to the center. However, the subjects living close to the center, taken as an aggregate, seems to have defined at least two centers: one, historical, traditional Centro, including the Cathedral and the Zocalo, and another between San Juan de Letran and Avenida Insurgentes. Both of these appear clearly bounded to the north, west, and east, and not nearly so clearly bounded to the south. Even the center which includes the historic Centro has the Cathedral and Zocalo adjacent to its northeast corner. These results appear to lend further support to the hypothesis that the center of Mexico is, at least conceptually, moving to the west, in line with the emergence of the Zona Rosa as an important commercial, social, and cultural area. Comparing figures 28, 29, and 30, we see that the maps of aggregated named boundaries seem to agree fairly well with the map of aggregated drawn boundaries.

Point and area imagery: two colonias of México

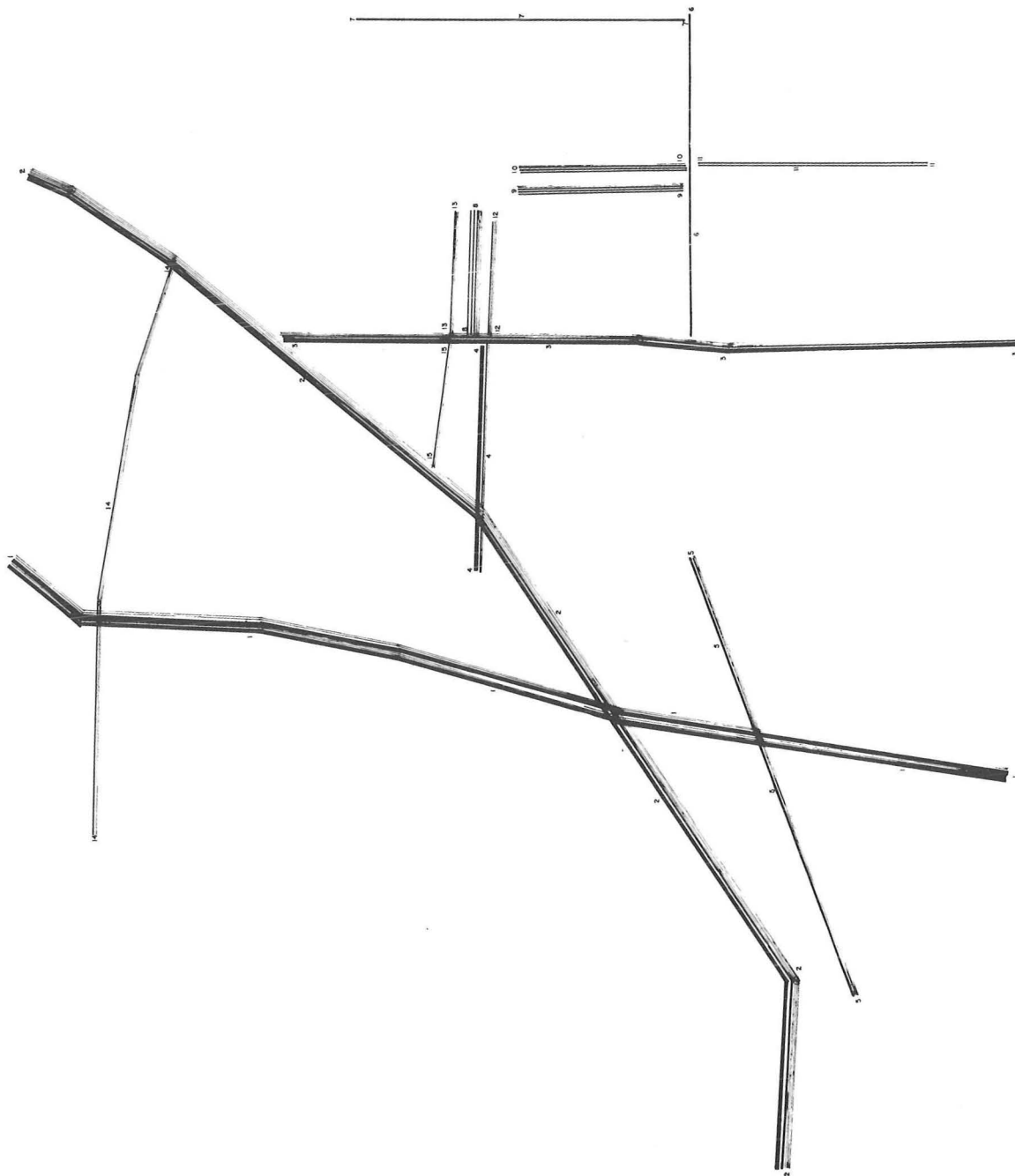
Imagery data was gathered on all 19 colonias in which interviews were conducted, but the results of only two such surveys are presented here as examples. At least four features illustrated by these examples are worthy of note. First, they demonstrate that it is possible to obtain fairly detailed imagery data for relatively small non-central sub-sectors (in proportionate area) of cities. Second, as with cities and their centers, non-central sub-areas - at least in México - demonstrate marked discrepancies between the extents of the "envelopes" and "hearts" of their composite areal imagery, showing lack of agreement concerning the boundaries of the colonia. Third, as the comparison of these two colonias shows, it is possible for a colonia to be conceptually monocentric, as Villa Guadalupe, or multi-centered, as Tlalpan. Fourth, difference in the hierarchical importance of various morphological features is possible between colonias, even within a single city. Paths and barriers are more evident in Tlalpan than in Villa Guadalupe.

Why did we obtain these results in these two instances? While these sectors were chosen for illustration, they do not represent extremes, but at least two relationships between intuitive observation and imagery are especially strong. Villa Guadalupe, an otherwise rather undifferentiated area, contains a group of buildings which, taken together, represent what is probably the most important shrine in all of the Republic. Hence, one would expect and in fact obtain a monocentric area image. Most of the streets are narrow, however; they vary greatly in length and change direction

frequently. In terms of street pattern, therefore, Villa Guadalupe is not a legible area. Tlalpan, in many respects an equally undifferentiated area is at a higher socio-economic level. But the streets of Tlalpan are wider than in Villa Guadalupe and somewhat more regular in pattern.³

While certain striking results of the México - Puebla - Guanajuato study have been outlined here, we have reserved a fuller discussion of them, together with the San Cristobal findings, for Chapter VI.

Figures 28 and 29. Summary of verbal responses
limiting the center of Mexico



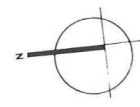
LIMITES NOMBRADOS DEL CENTRO DE LA
CD. DE MEXICO.

GRUPOS FUERA DEL CENTRO
VECES NOMBRADOS PORCENTAJE

LIMITES	VECES	NOMBRADOS	PORCENTAJE
1- Av. Insurgentes	64		73.0
2- Av. de la Independencia	58		67.0
3- Av. de la Libertad	58		67.0
4- Av. de la Paz	58		67.0
5- Av. de la Victoria	58		67.0
6- Av. de la Unidad	58		67.0
7- Av. de la Constitución	58		67.0
8- Av. de la Revolución	58		67.0
9- Av. de la Libertad	58		67.0
10- Av. de la Paz	58		67.0
11- Av. de la Unidad	58		67.0
12- Av. de la Constitución	58		67.0
13- Av. de la Revolución	58		67.0
14- Av. de la Libertad	58		67.0
15- Av. de la Paz	58		67.0

CLAVE

- VECES
- 30
- 20
- 10
- 5
- 1



LÍMITES NOMBRADOS DEL CENTRO DE LA
 CD. DE MÉXICO. CERCA DEL CENTRO.
 GRUPOS NOMBRADOS

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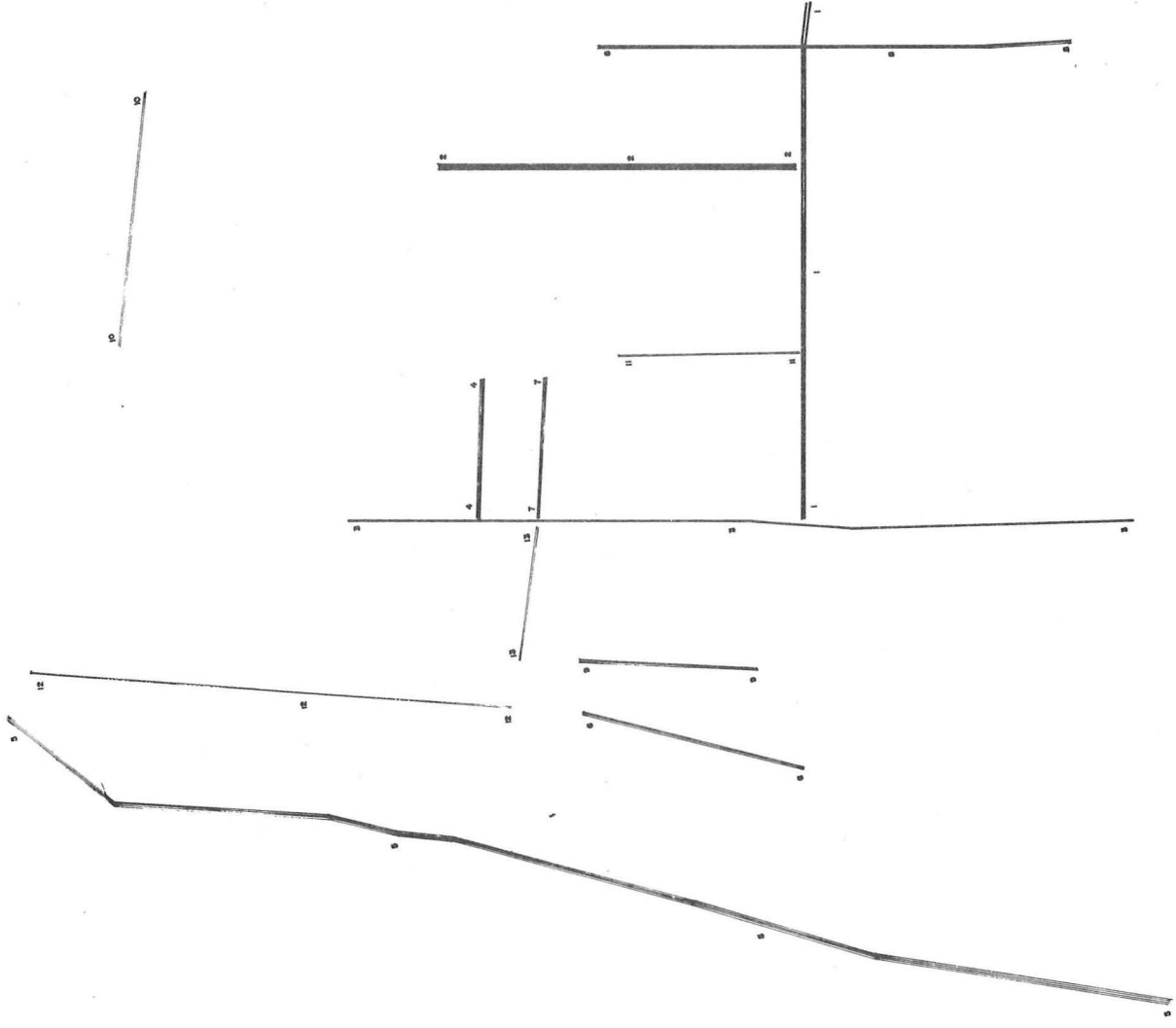
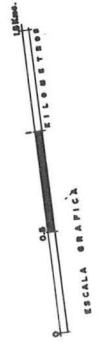
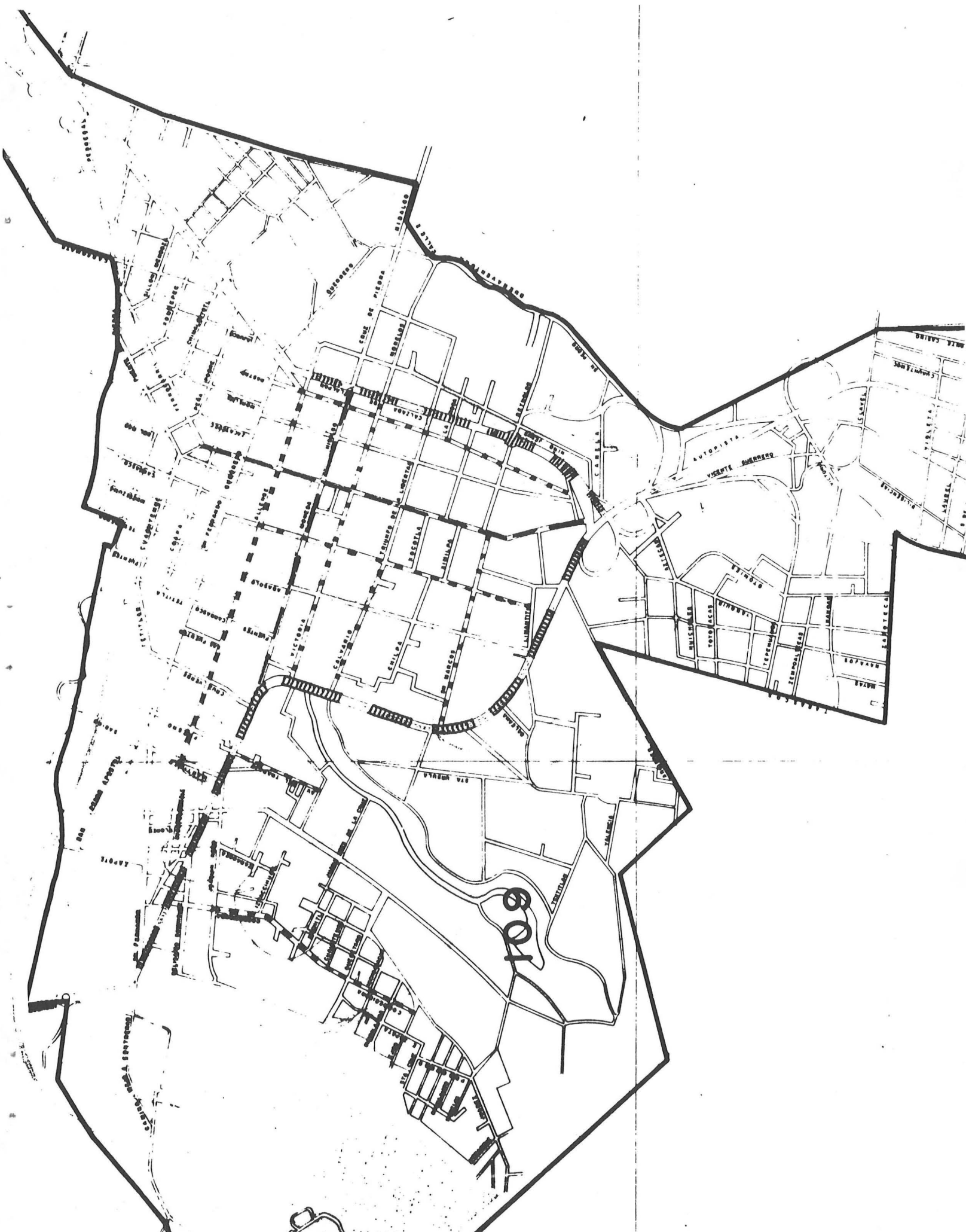
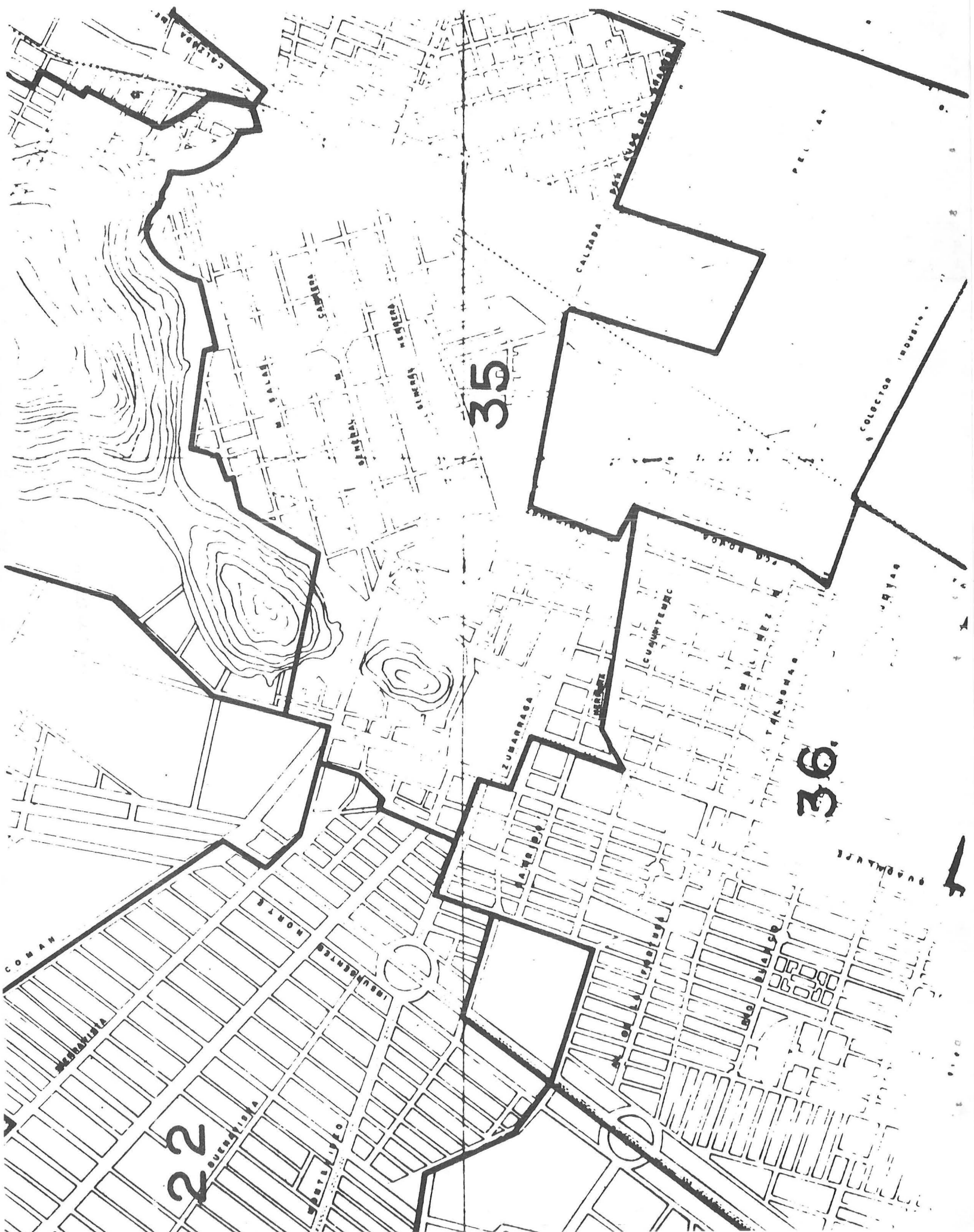


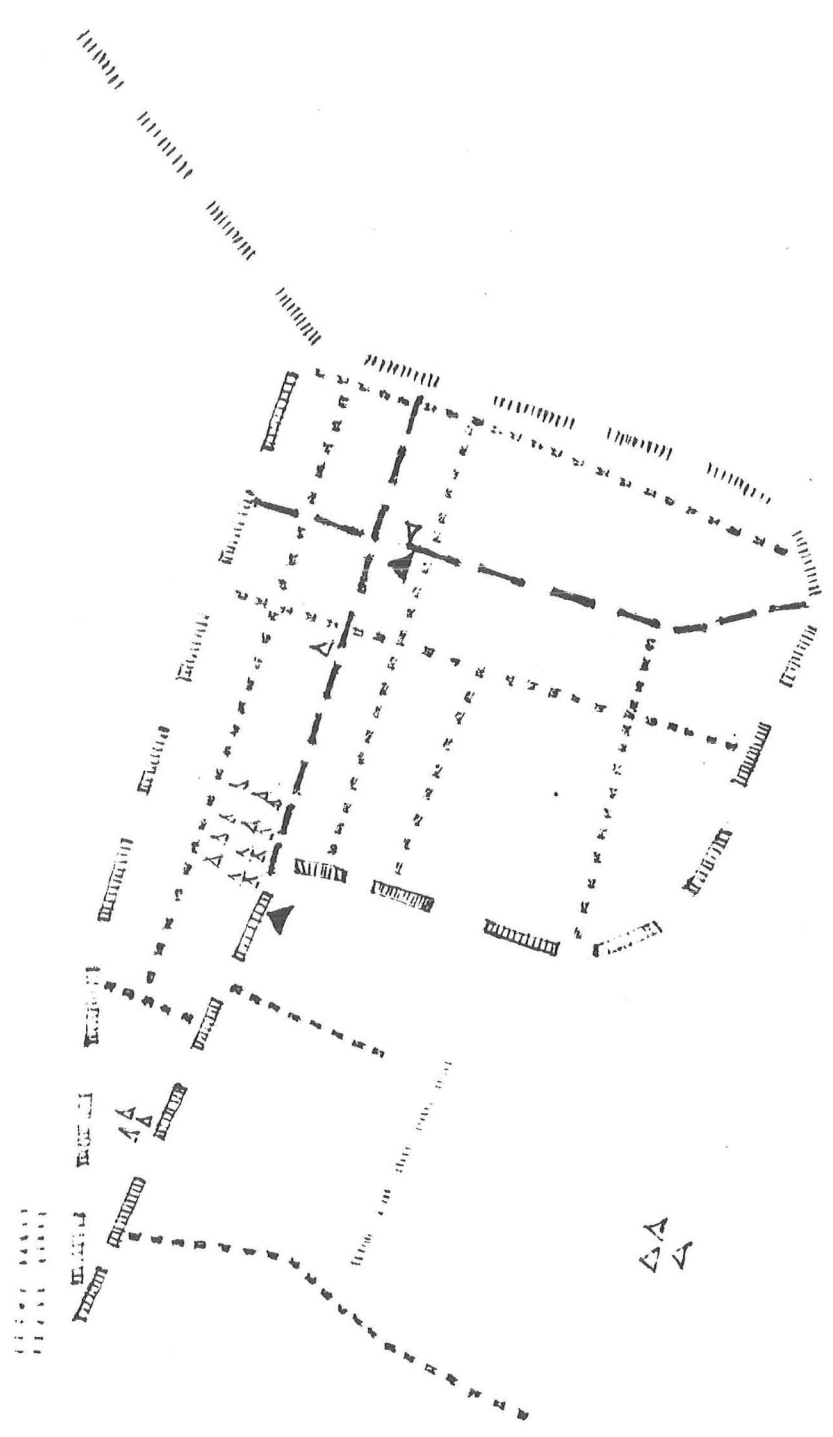
Figure 30. Envelope of the center of Mexico
and its "heart" produced from drawn boundaries.

Figures 31 and 32. Maps of Tlalpan Sector and
Villa Guadalupe Sector, México.





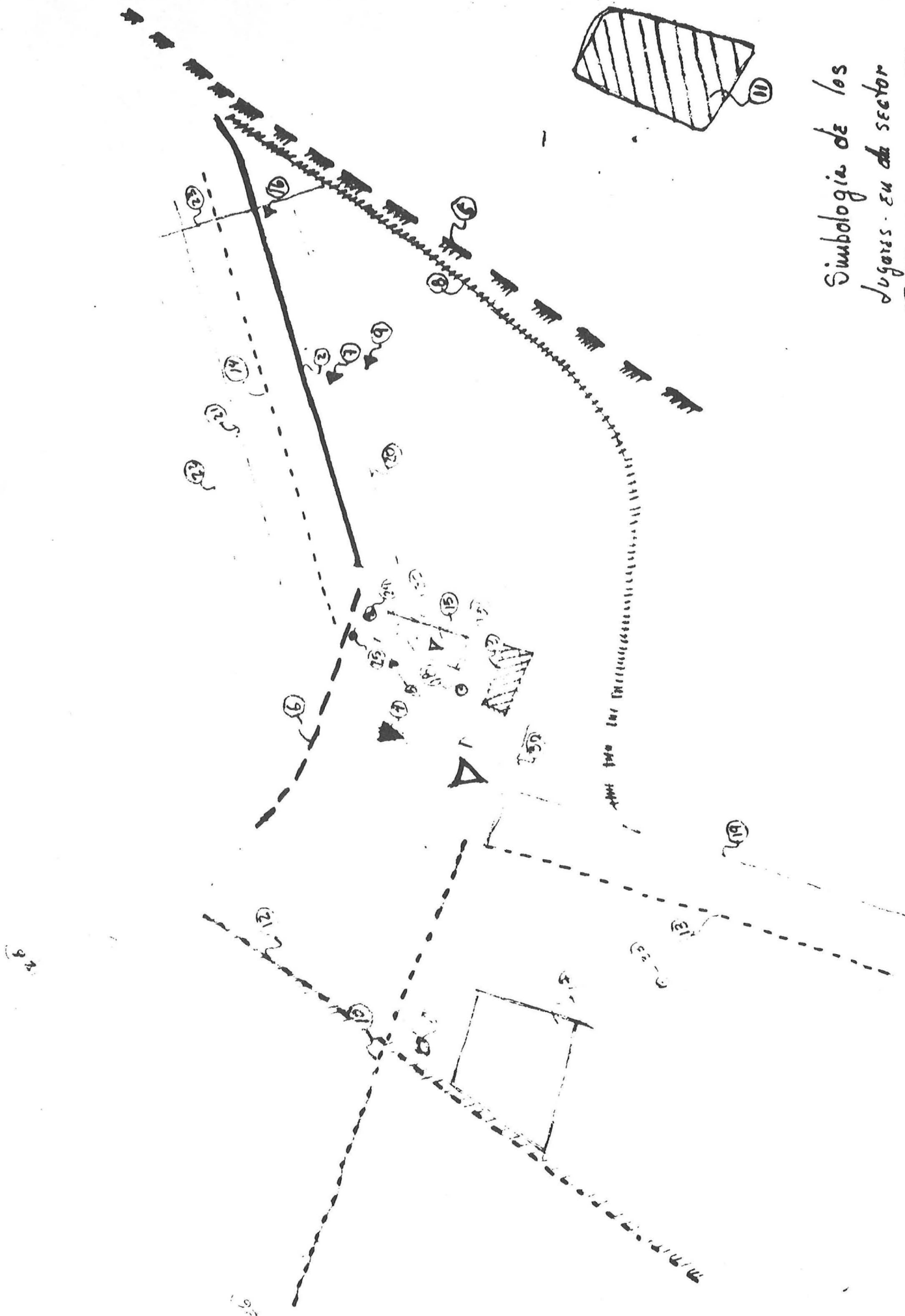
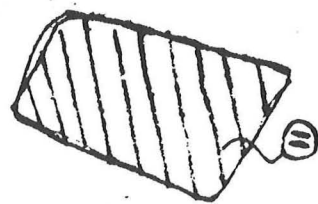
Figures 33 and 34. Point imagery, Tlalpan Sector
and Villa Guadalupe Sector, Mexico.



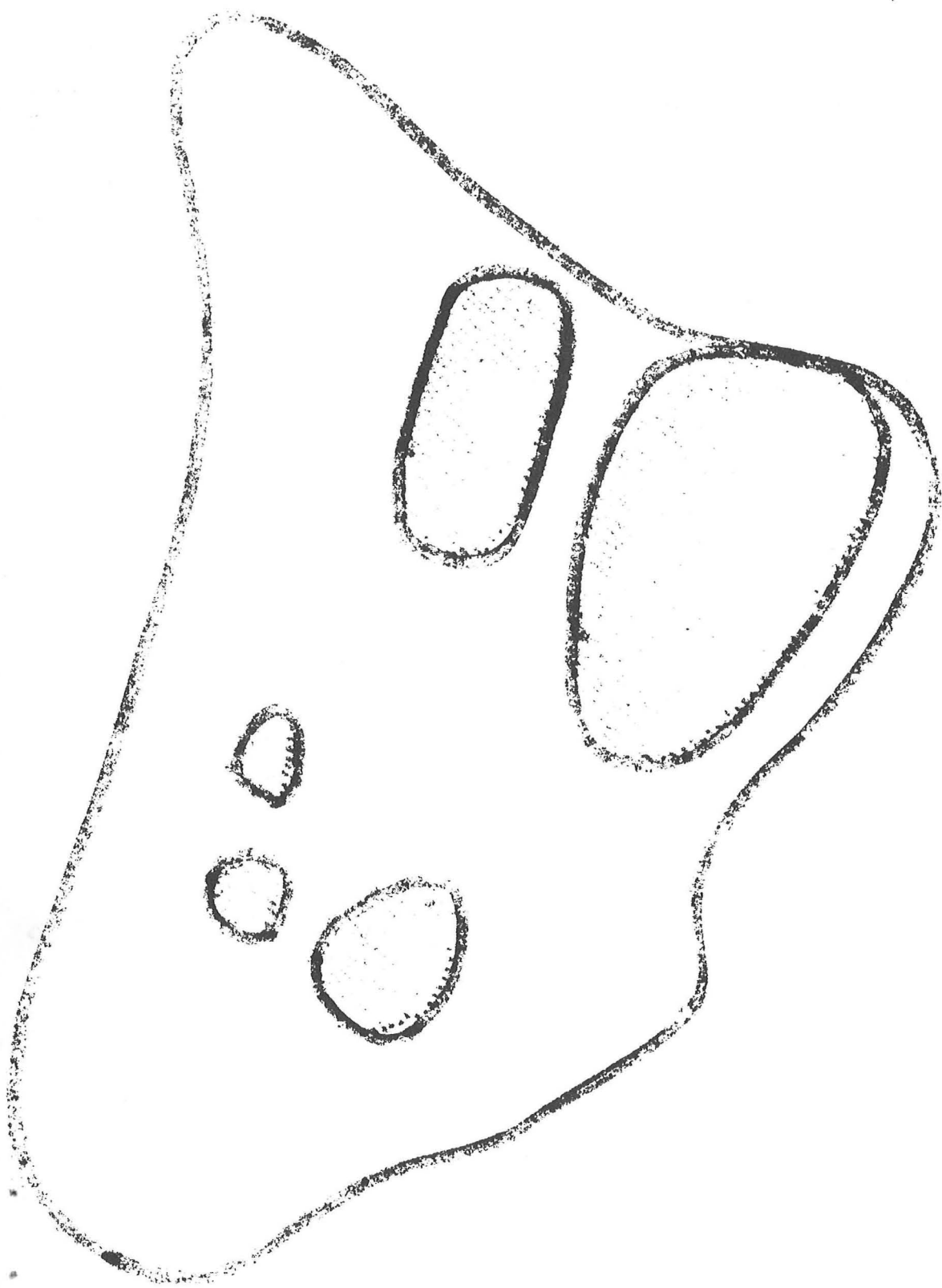
SECTION DE PALPANI	
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MONTAGNE DE PALPANI	

Simbología de los lugares en el sector

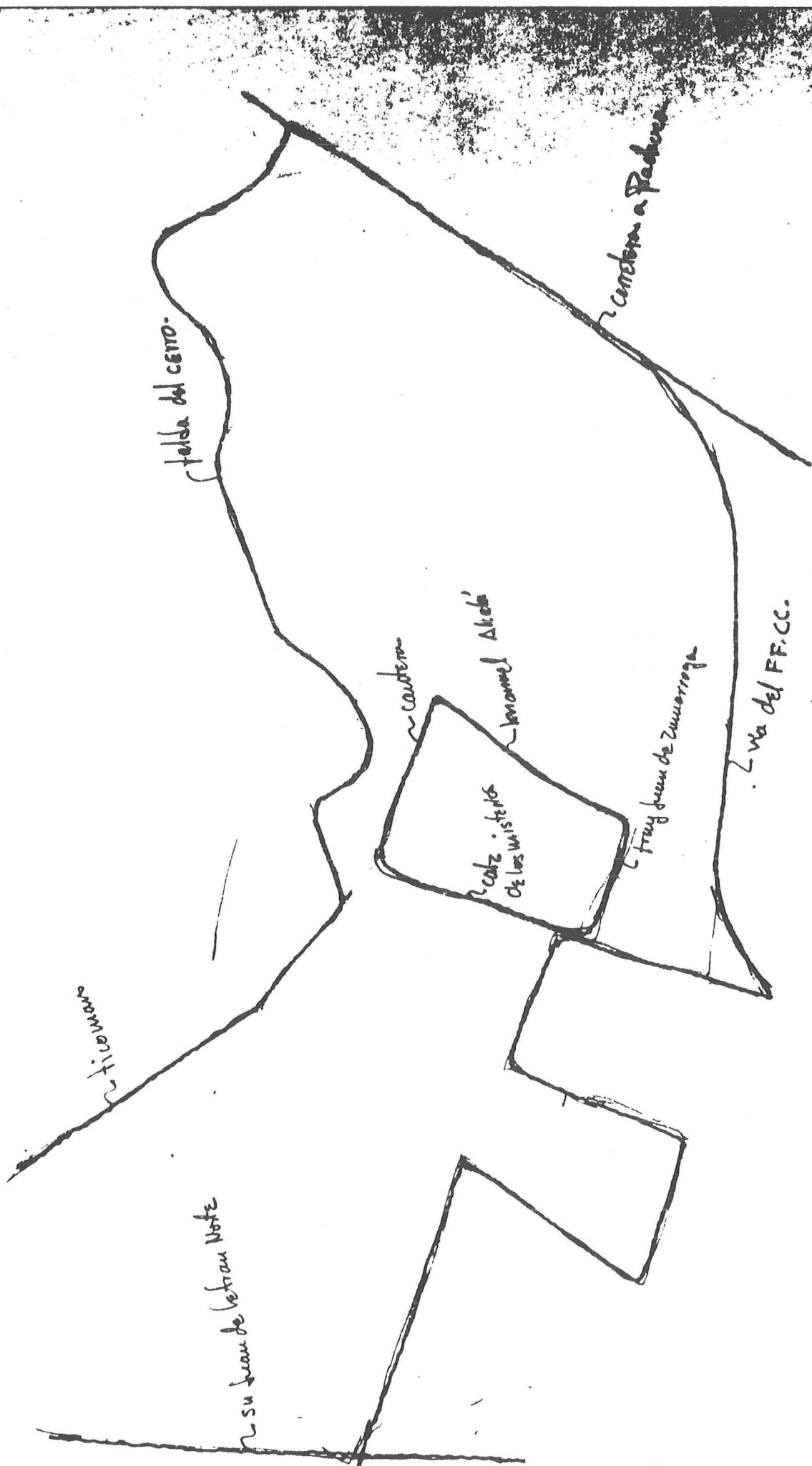
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MEXICO



Figures 35 and 36. Area imagery (boundedness),
Tlalpan Sector and Villa Guadalupe Sector, Mexico.



SECTOR DE TALPAN	GRUPO
LIMITES	7
ROBERTO ARRIAGA	
HABIBEL NUÑEZ	



Plano de los límites de
el sector.

Grupo # 15

México