ATOMIA - DISTINCTIVE FEATURES OF THE PROBLEM

New Town: Developed with federal funds in conjunction with Federal Atomic Research Facility / satellite city / 30 miles southwest of Chicago / located on a major radial freeway / highly educated population of 220,000 / population predominantly professional, semi-professional and skilled / medium density residential.

Educational Plan: Technology oriented / centers around educational nodes / nodes or educational center serving relatively limited population groups in relatively independent settings.

LOCATION MAP -- ATOMIA

LAND USE BREAKDOWN

Type	%	Acres
Institutional and open	50%	7,333
Residential	25%	3,667
Industrial	10%	1,467
Public Right of Way	10%	1,467
Commercial	5%	733
TOTAL	100%	14,667

COMMUNITY STRUCTURE

Unit	No. of Next Lower Units	No. of Units in City	Population/Unit (People)
A Block	0	1,680	100-150
B Neighborhood	4	420	400-600
C Village	5	84	2,000-2,500
D Town	6	14	12,000-15,000
E Center	14	1	10,000-14,000

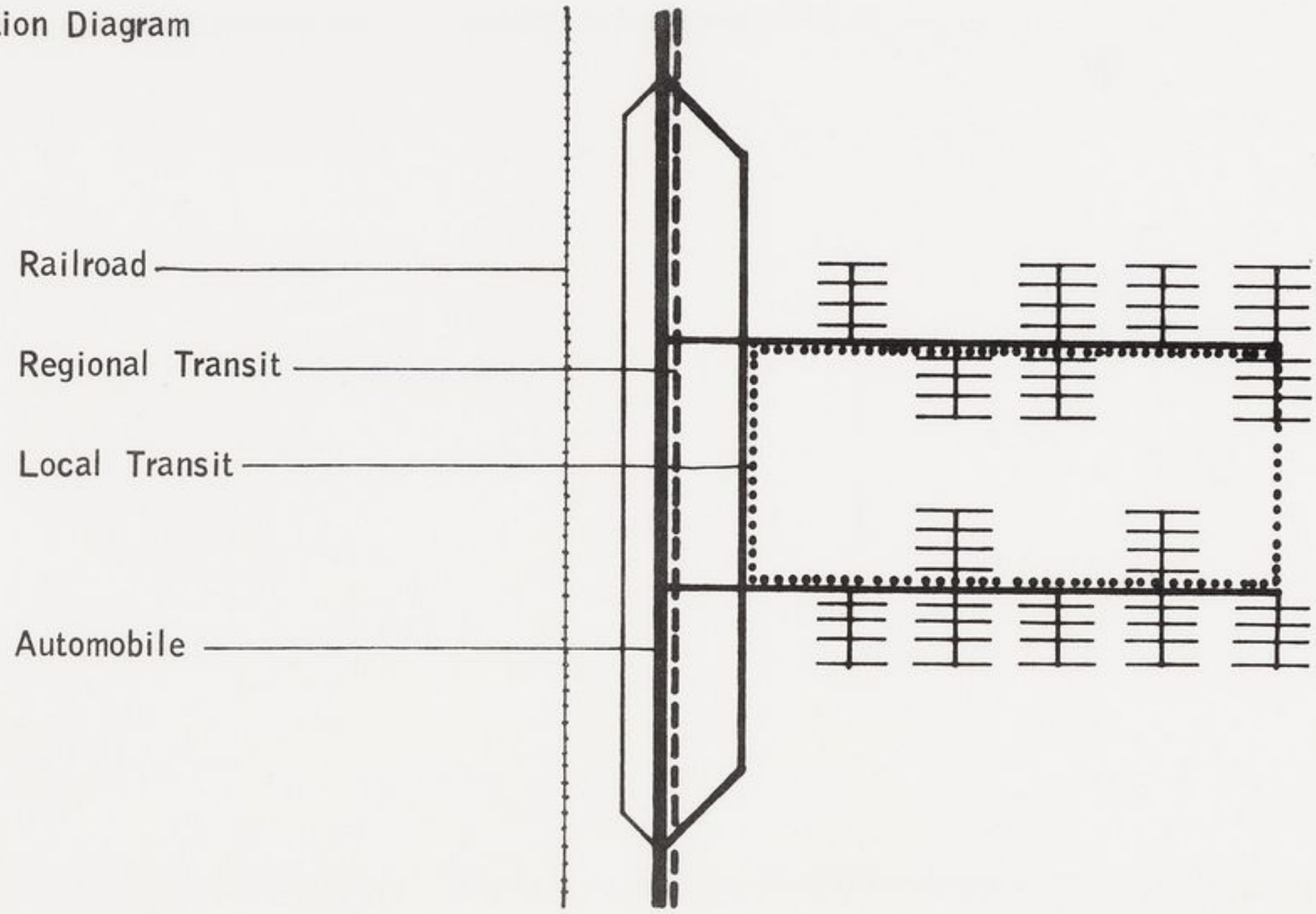
DWELLING UNIT BREAKDOWN

Type of Residential	% of Total Dwelling Units	No. of Dwelling Units	Average Dwelling Unit/ Acre
1 family detached	15%	9,450	7
2 family detached	5%	3,150	11
l family attached	50%	31,500	18.5
2 story apts.	15%	9,450	30
8-13 story apts.	15%	9,450	90
TOTAL	100%	63,000	

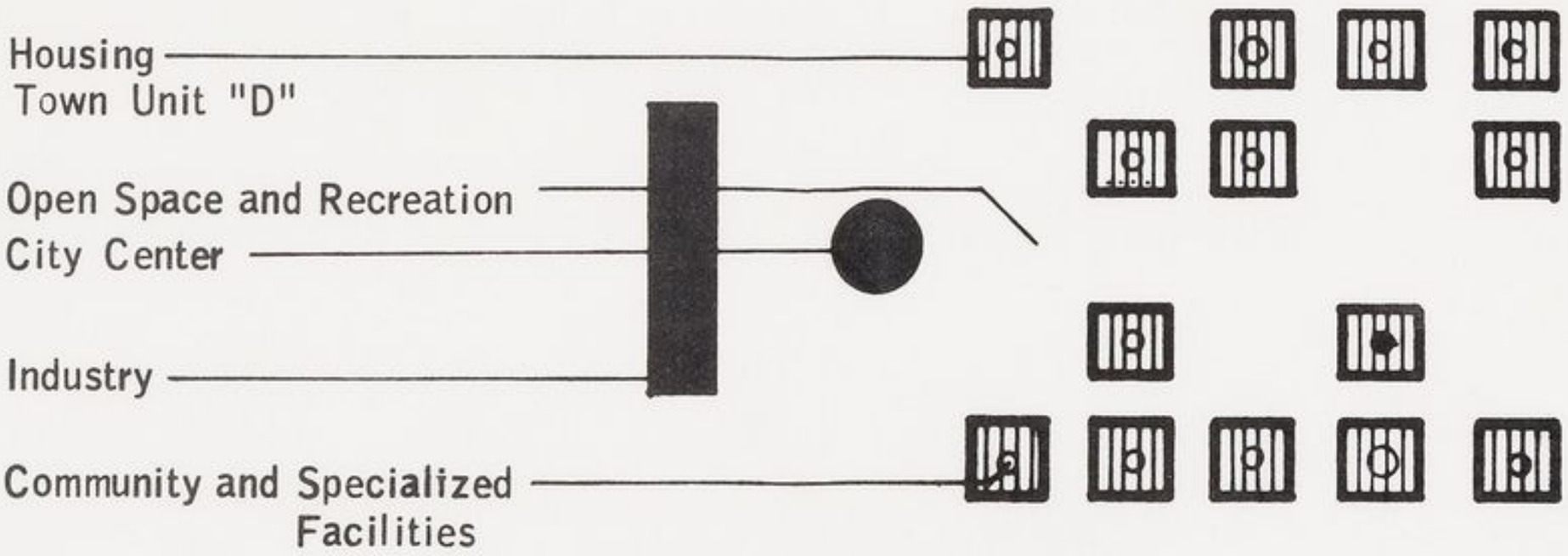
Average	60 people/ residential acre
Average	3.5 people/ dwelling unit
Total	63,000 dwelling units

CONCEPTUAL DIAGRAMS

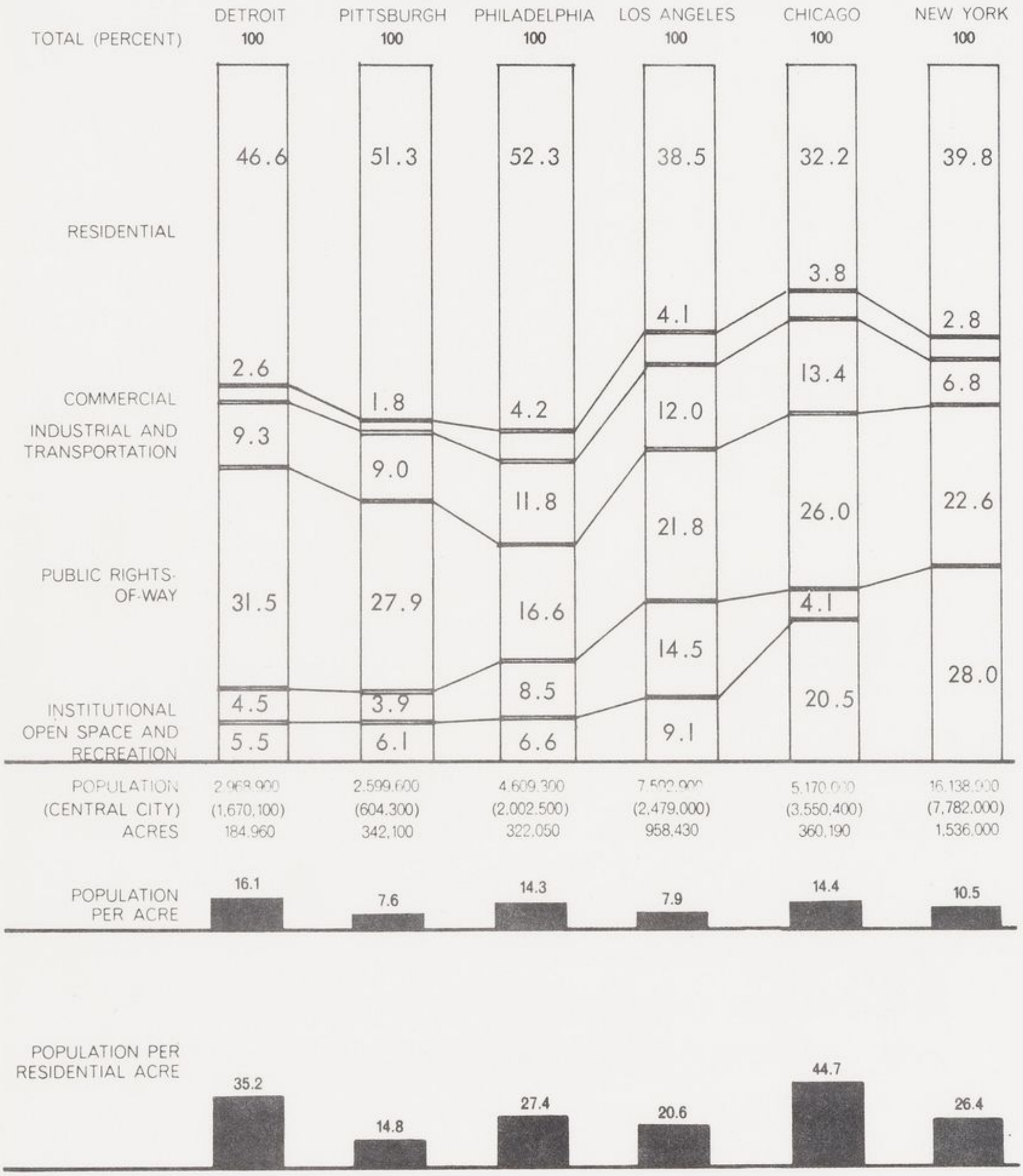
Circulation Diagram



Land Use Diagram

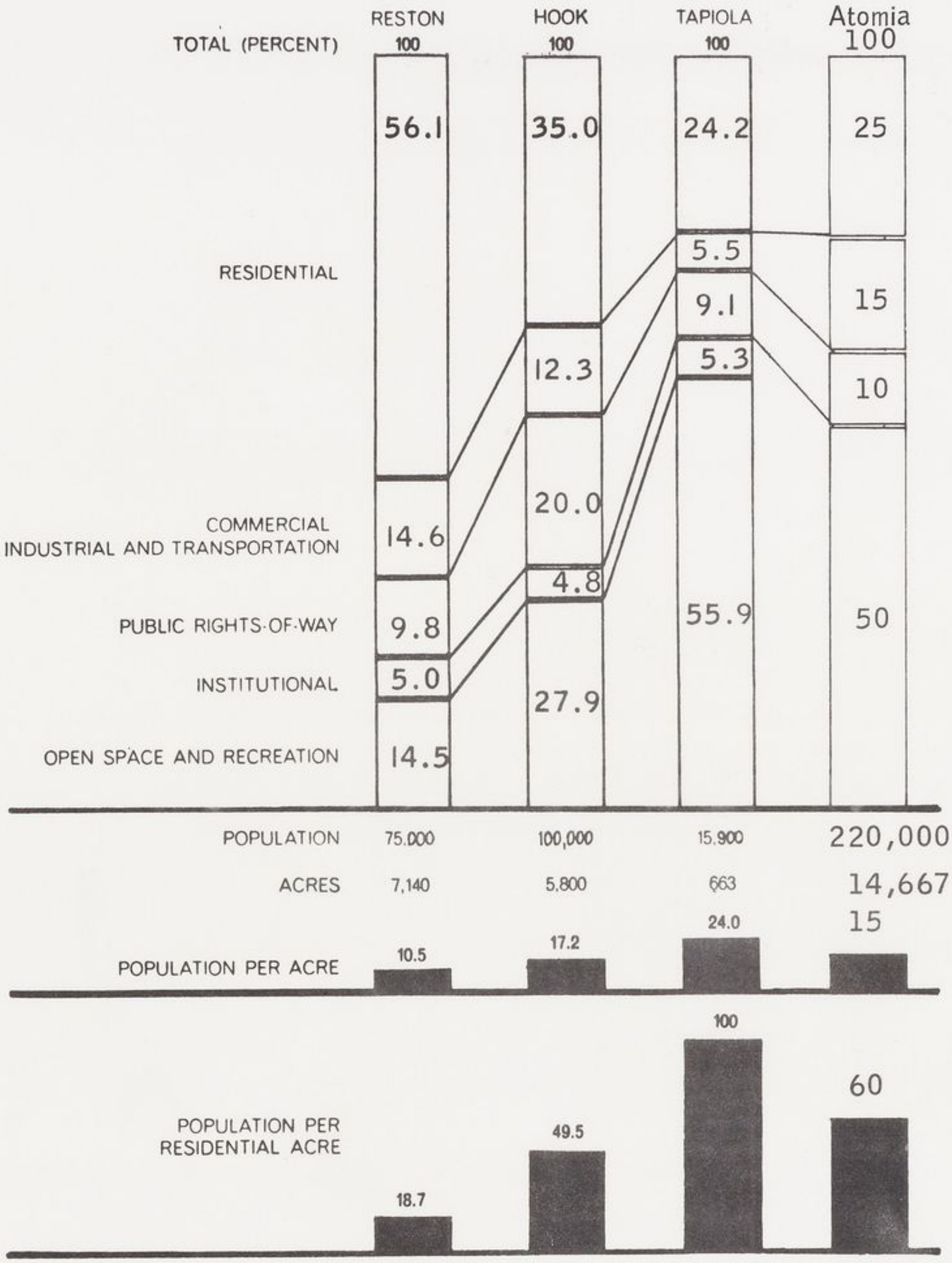


COMPARATIVE LAND USE



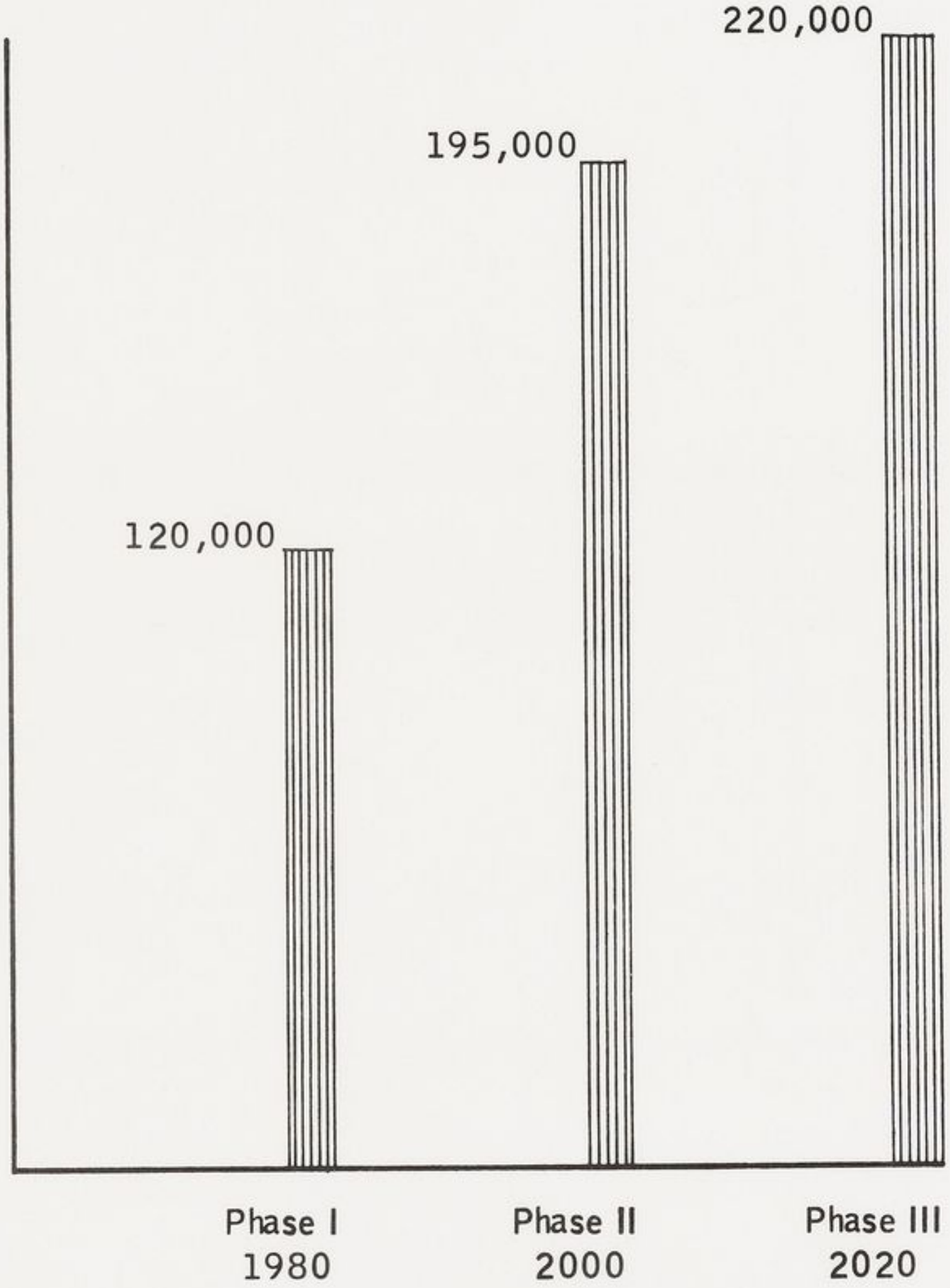
LAND USE IN METROPOLITAN REGIONS shows a wide range of variation. The seven regions are arranged so that percentage of open space increases from left to right. Even though the figure for New York includes land devoted to institutional use, the combined figure is higher than the combined figure that can be obtained for any other region. This suggests that New York indeed has more open space than other regions. The population figures shown in color include surrounding regions in addition to the central city. The population of the central city appears in parentheses. Populations shown are for 1960 except for Chicago (1956) and Detroit (1953). Note the range in population densities. The data for this illustration were assembled by the Regional Plan Association.

COMPARATIVE LAND USE

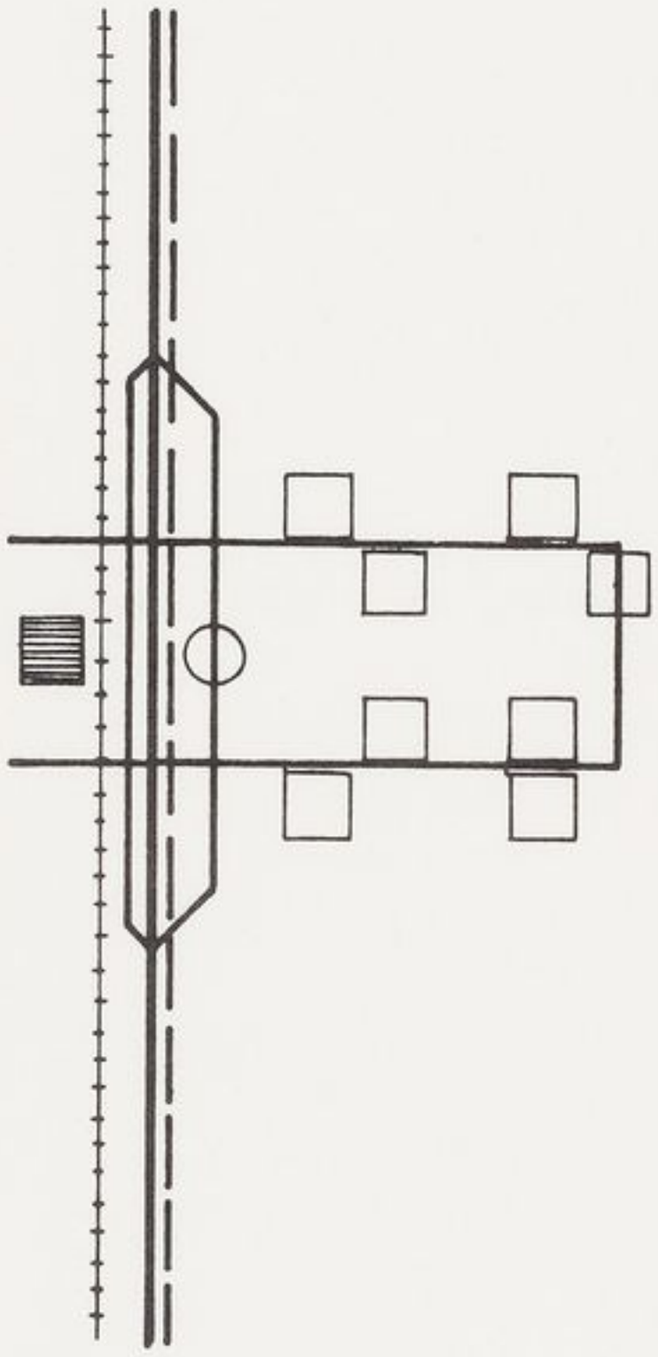


LAND USE IN NEW TOWNS shows how planners in different countries approach the problem. Reston is a new community in Virginia, 18 miles from Washington, D.C., which has attracted much comment among American planners. Tapiola, a new Finnish town, embodies the ideas of Scandinavian planners. Hook, a new town that lies between London and Southampton, will have a higher population density than any of the other new towns built in Britain since World War II. The populations of Hook and Reston are projections.

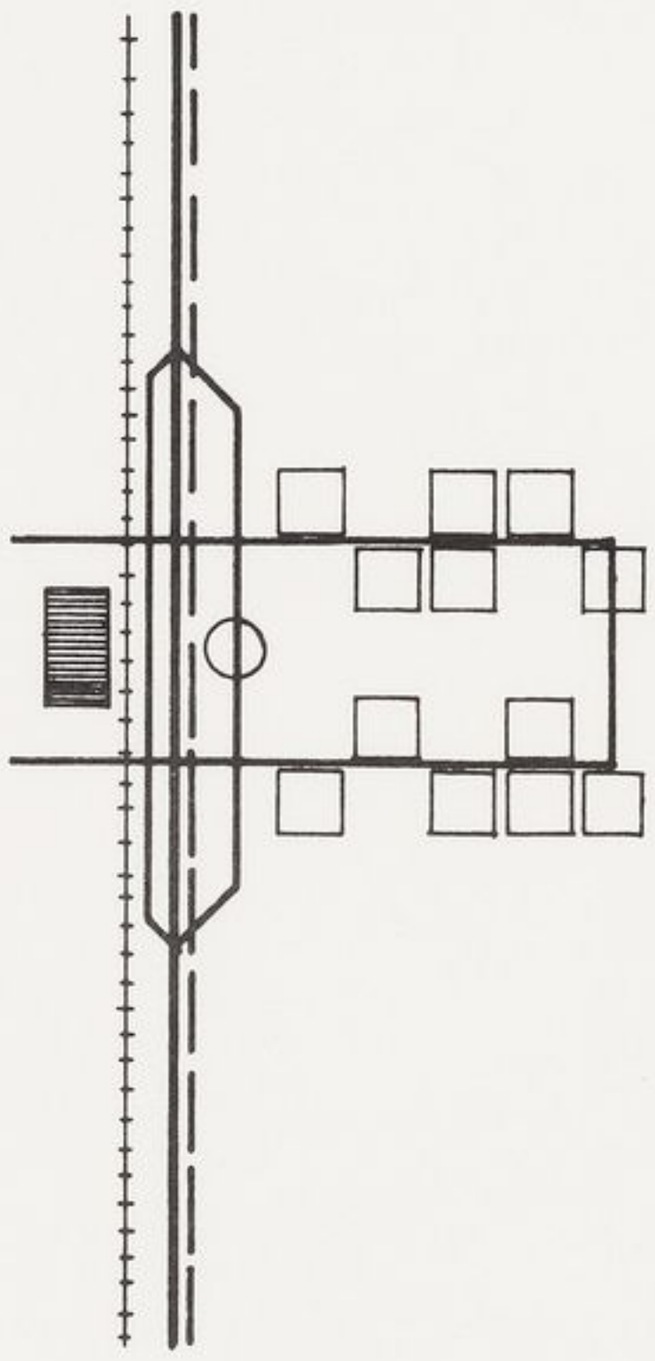
POPULATION PROJECTION



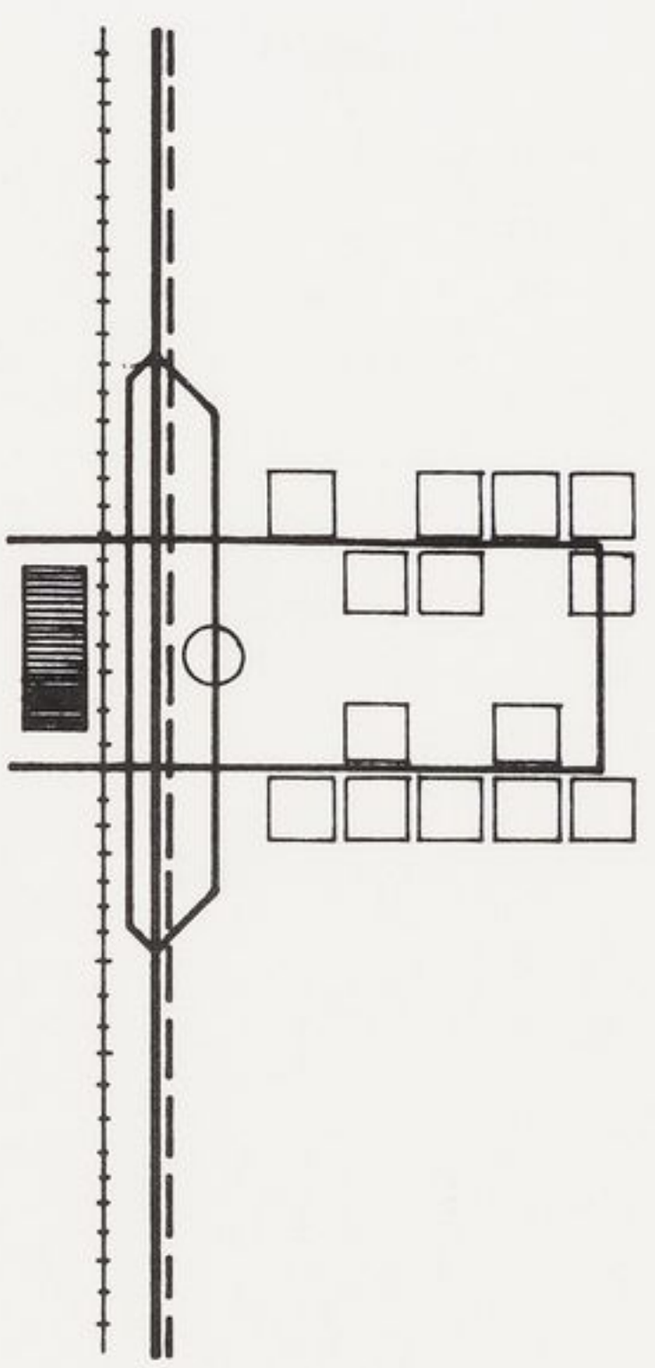
STAGING DIAGRAM



Phase I
Year 1980
8 Town "D" Units @
12,000-15,000
population each
(6,000-8,000 in
city center)
120,000 total population



Phase II
Year 2000
12 Town "D" Units @
12,000-15,000
population each
(10,000-14,000 in
city center)
195,000 total population



Phase II
Year 2020
14 Town "D" Units @
12,000-15,000
population each
(10,000-14,000 in
city center)
220,000 total population

ATOMIA

Atomia is uncomfortably hot, cold, wet, and dry on occaion. Perhaps the greatest problem is to avoid conflicting provisions for several extremes and sudden changes. Located in Central Illinois near the Great Lakes, Atomia never-the-less recieves its predominent winds from the southwest and west. The terrain is generally flat with occasional hills.

Summers are usually hot and humid and winters cold and wet with frequent sudden changes due to Canadian cold fronts. Winds are generally strong from the west and southwest, but with winter cold winds from the northwest. Fastest winds occur from either direction.

TEMPERATURES:

5% year max. temp.	between	85°	and 105°
25% year max. temp.	between	65°	and 85°
25% year max. temp.	between	45°	and 65°
30% year max. temp.	between	25°	and 45°
10% year max. temp.	between	0	and 25°

The majority of the year, weather is cold to warm with extremes only for short periods. The combination of low temperatures and high winter winds cause severe discomfort without proper protection. Hot periods sometimes exceed 100° and winds are likely to be light and humidity high, causing great discomfort.

SKY:

Nearly 75% of possible sunshine hours are unobstructed in the summer. In the winter, only about 42% of possible sunshine gets through, or an average of about 3 hours of feeble sunshine per day. Not uncommon in winter to have a full month without sunshine.

WIND:

Winds are strongest in the winter, coming from the northwest and southwest. In summer, winds are lower in velocity, though stronger than average for other parts of the country. Breeziest part of the day is afternoon with a large portion of evening and night hours calm.

Winds are steady enough and strong enough to cause discomfort between buildings, around building entrances on streets and in other outdoor areas if proper precautions are not taken.

RAIN:

Average rainfall is moderate and fairly evenly distributed throughout the year. The tendency is for more rain in late summer.

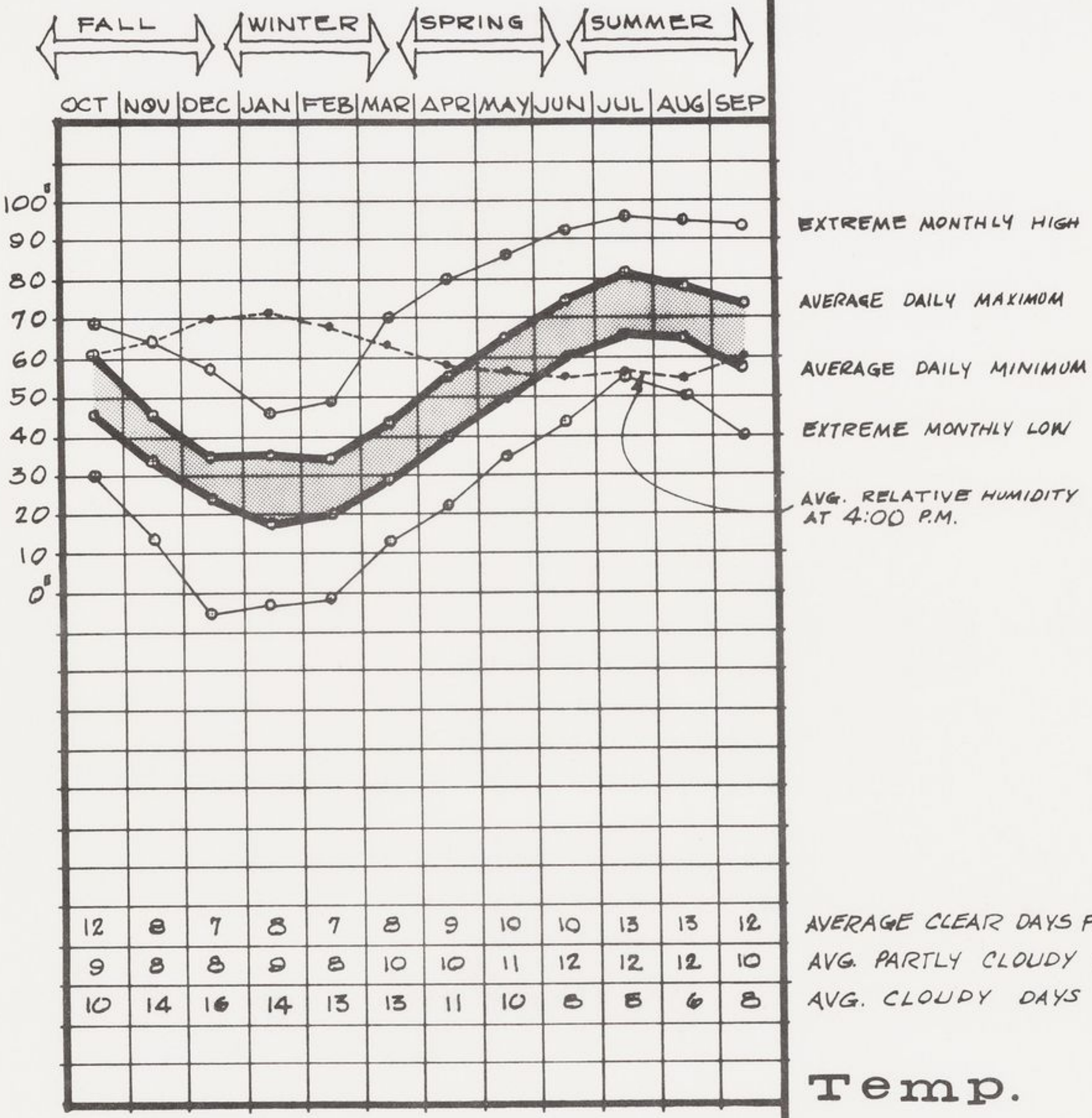
SNOW:

Snowfall is not excessive averaging, at most, 8 or 9 inches per month. However, occasional snows can be as much as 40 inches per month. Some winters are snowless. Most snows are wet and tend to melt rapidly.

RELATIVE HUMIDITY:

In the summer, the relative humidity ranges from 58% in the day to 80% at night. There is a high percentage of warm, muggy summer afternoons. In the winter, R.H. ranges from 70% in the day to 80% at night.

ATOMIA



12	8	7	8	7	8	9	10	10	13	13	12
9	8	8	9	8	10	10	11	12	12	12	10
10	14	16	14	13	13	11	10	8	8	6	8

AVERAGE CLEAR DAYS PER MO.
AVG. PARTLY CLOUDY DAYS
AVG. CLOUDY DAYS

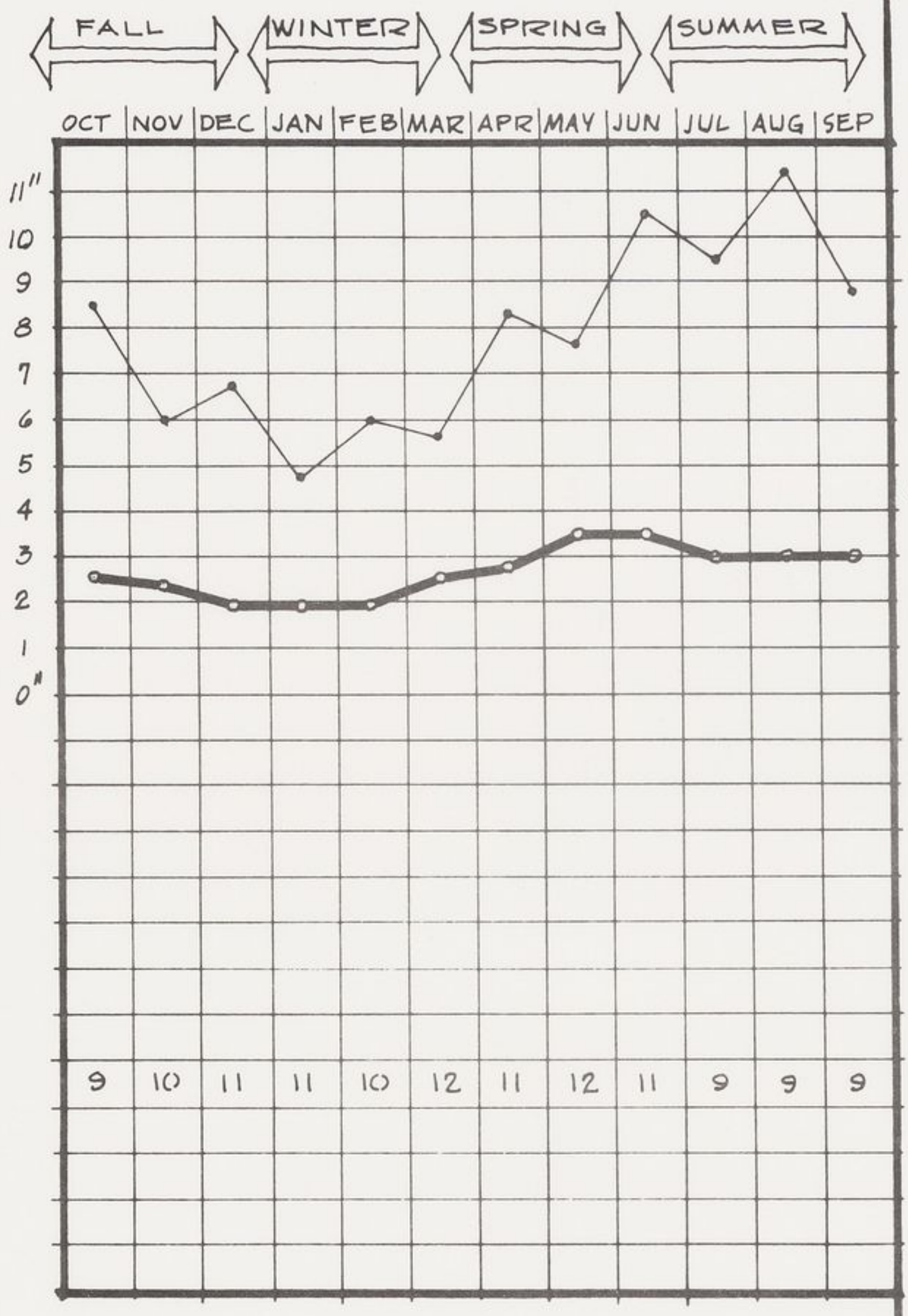
Temp.

ATOMIA

FALL
WINTER
SPRING
SUMMER
OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP
WIND DIRECTION (NORTH ↓)
49 59 56 51 65 53 56 56 56 56 56 56
FASTEST WINDS
10 12 11 12 12 13 12 12 10 9 9 10
AVG. MONTHLY WIND (MPH)
11 MPH
12 MPH
12 MPH
9 MPH
SEASONAL WINDS

Wind

ATOMIA



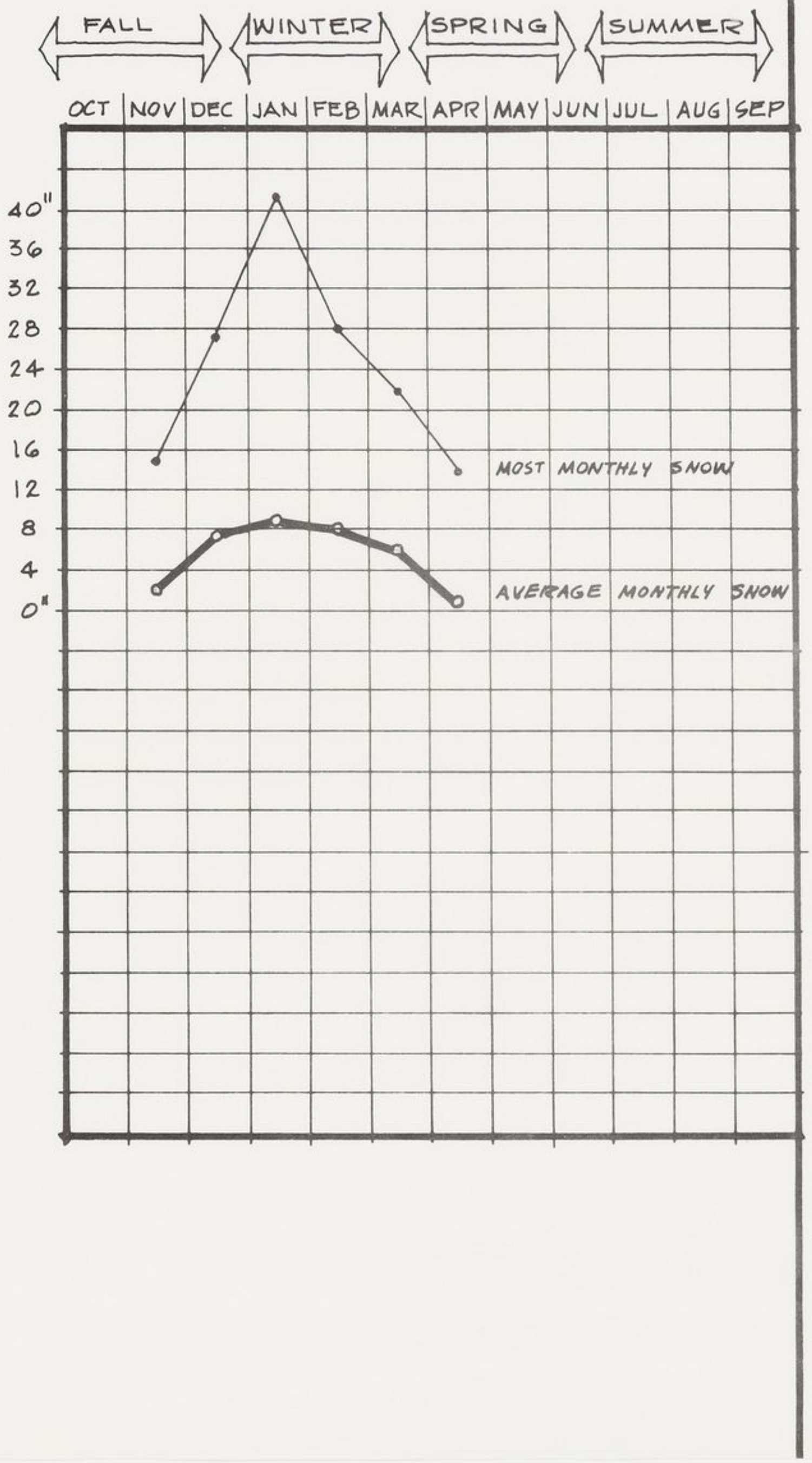
MOST MONTHLY RAINFALL
(MOST YEARLY - 46")

AVERAGE MONTHLY RAINFALL
(AVG. YEARLY - 33")

AVERAGE RAINY DAYS/MONTH

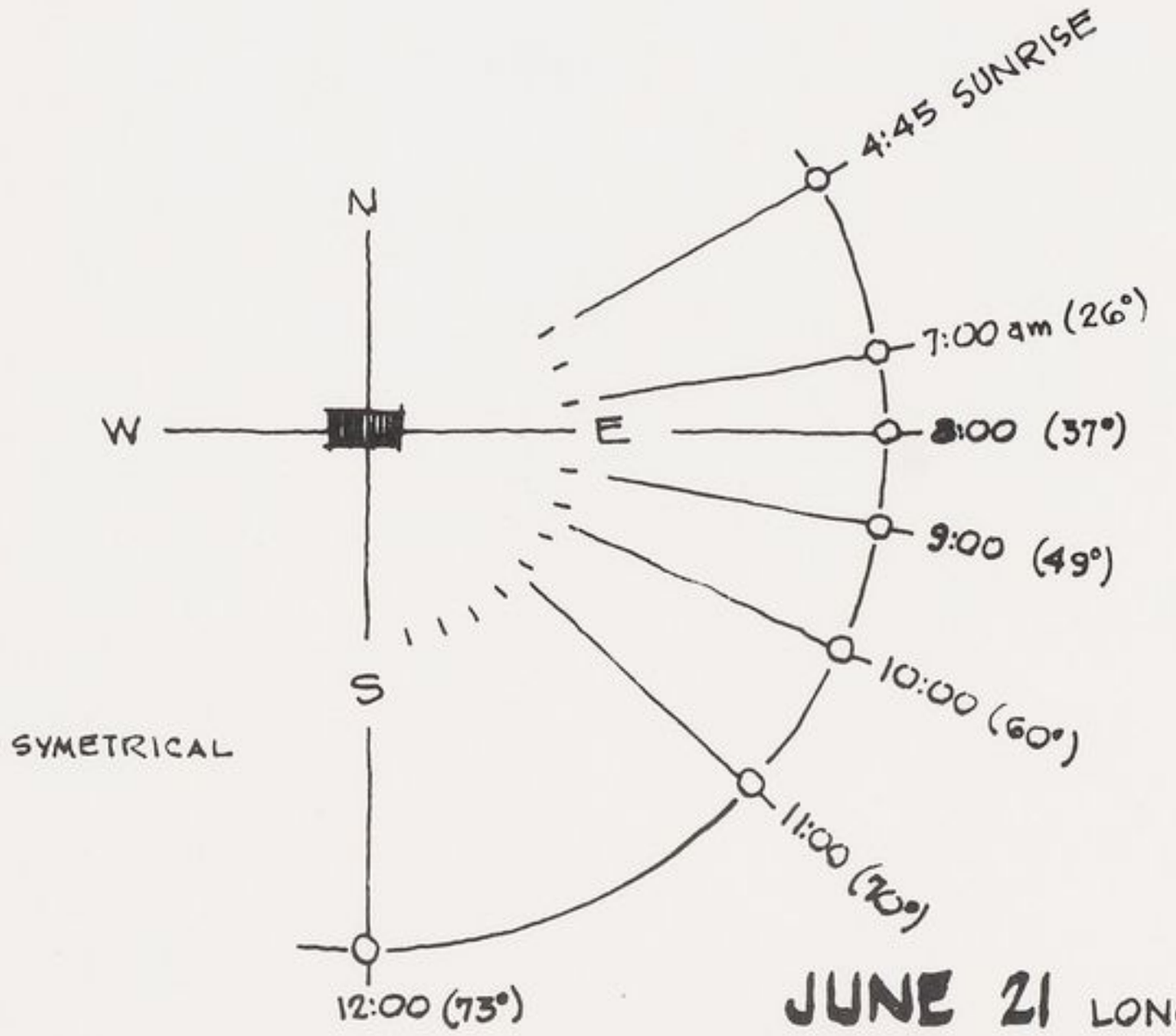
Rain

ATOMIA

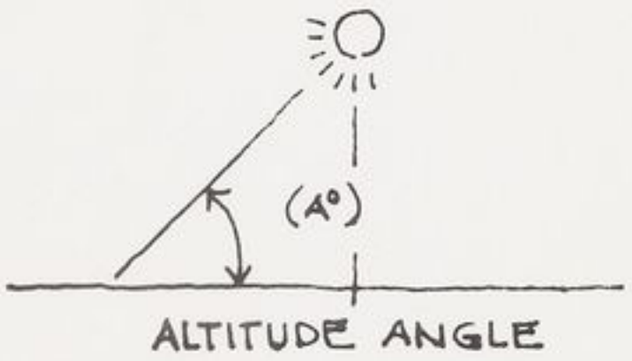

FALL
WINTER
SPRING
SUMMER
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
40"
36
32
28
24
20
16
12
8
4
0"
MOST MONTHLY SNOW
AVERAGE MONTHLY SNOW

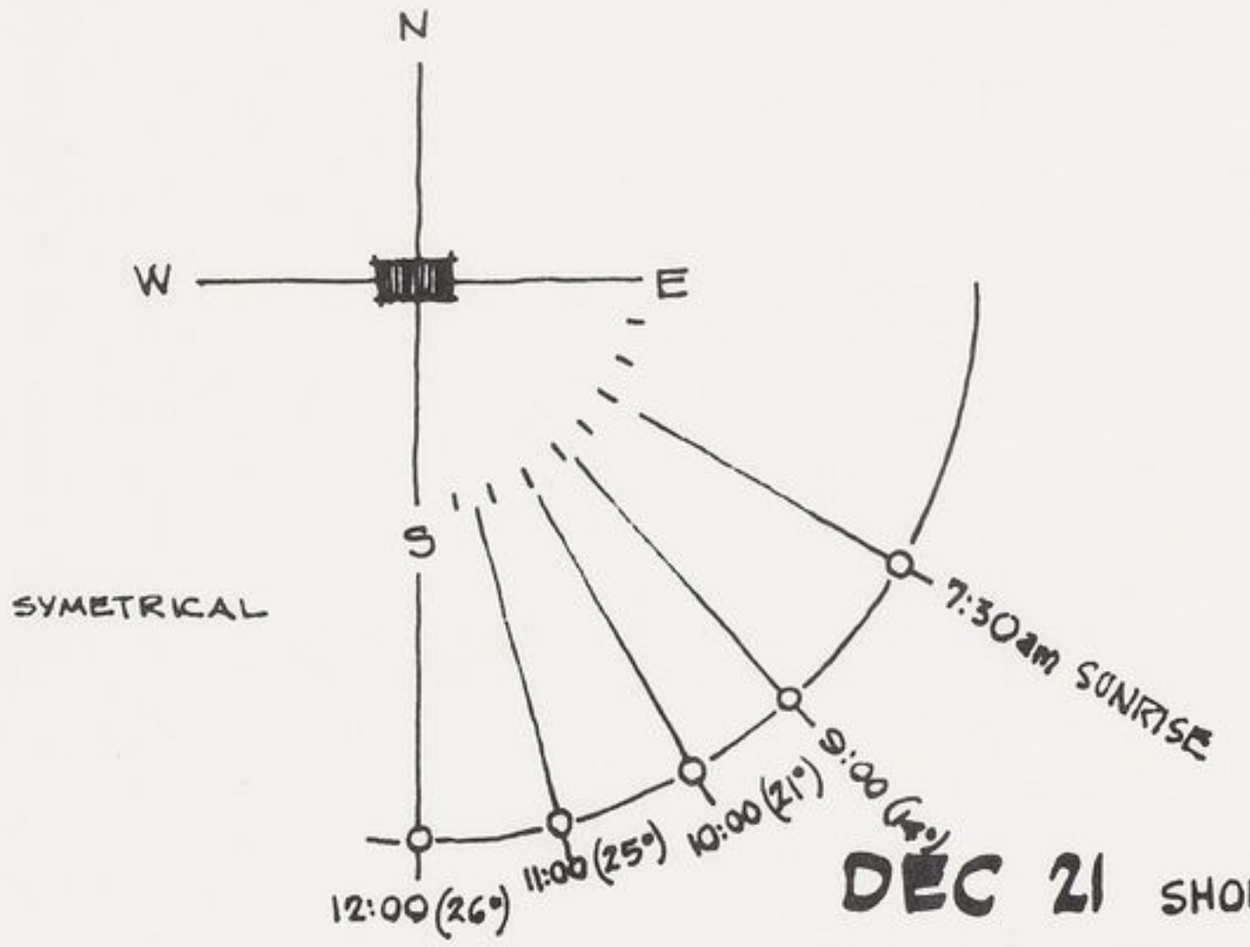
Snow

ATOMIA



JUNE 21 LONGEST DAY





DEC 21 SHORTEST DAY

Sun