A Pattern Language

Towns · Buildings · Construction

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with
Max Jacobson · Ingrid Fiksdahl-King
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A Pattern Language is the second in a series of books which describe an entirely new attitude to architecture and planning. The books are intended to provide a complete working alternative to our present ideas about architecture, building, and planning—an alternative which will, we hope, gradually replace current ideas and practices.

volume 1 THE TIMELESS WAY OF BUILDING
volume 2 A PATTERN LANGUAGE
volume 3 THE OREGON EXPERIMENT

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A PATTERN LANGUAGE
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Volume 1, *The Timeless Way of Building*, and Volume 2, *A Pattern Language*, are two halves of a single work. This book provides a language, for building and planning; the other book provides the theory and instructions for the use of the language. This book describes the detailed patterns for towns and neighborhoods, houses, gardens, and rooms. The other book explains the discipline which makes it possible to use these patterns to create a building or a town. This book is the sourcebook of the timeless way; the other is its practice and its origin.

The two books have evolved very much in parallel. They have been growing over the last eight years, as we have worked on the one hand to understand the nature of the building process, and on the other hand to construct an actual, possible pattern language. We have been forced by practical considerations, to publish these two books under separate covers; but in fact, they form an indivisible whole. It is possible to read them separately. But to gain the insight which we have tried to communicate in them, it is essential that you read them both.

*The Timeless Way of Building* describes the fundamental nature of the task of making towns and buildings.
It is shown there, that towns and buildings will not be able to become alive, unless they are made by all the people in society, and unless these people share a common pattern language, within which to make these buildings, and unless this common pattern language is alive itself.

In this book, we present one possible pattern language, of the kind called for in *The Timeless Way*. This language is extremely practical. It is a language that we have distilled from our own building and planning efforts over the last eight years. You can use it to work with your neighbors, to improve your town and neighborhood. You can use it to design a house for yourself, with your family; or to work with other people to design an office or a workshop or a public building like a school. And you can use it to guide you in the actual process of construction.

The elements of this language are entities called patterns. Each pattern describes a problem which occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use this solution a million times over, without ever doing it the same way twice.

For convenience and clarity, each pattern has the same format. First, there is a picture, which shows an archetypal example of that pattern. Second, after the picture, each pattern has an introductory paragraph, which sets the context for the pattern, by explaining how it helps to complete certain larger patterns. Then there are three diamonds to mark the beginning of the problem. After the diamonds there is a headline, in bold type. This headline gives the essence of the problem in one or two sentences. After the headline comes the body of the problem. This is the longest section. It describes the empirical background of the pattern, the evidence for its validity, the range of different ways the pattern can be manifested in a building, and so on. Then, again in bold type, like the headline, is the solution—the heart of the pattern—which describes the field of physical and social relationships which are required to solve the stated problem, in the stated context. This solution is always stated in the form of an instruction—so that you know exactly what you need to do, to build the pattern. Then, after the solution, there is a diagram, which shows the solution in the form of a diagram, with labels to indicate its main components.

After the diagram, another three diamonds, to show that the main body of the pattern is finished. And finally, after the diamonds there is a paragraph which ties the pattern to all those smaller patterns in the language, which are needed to complete this pattern, to embellish it, to fill it out.

There are two essential purposes behind this format. First, to present each pattern connected to other patterns, so that you grasp the collection of all 253 patterns as a whole, as a language, within which you can create an infinite variety of combinations. Second, to present the problem and solution of each pattern in such a way that you can judge it for yourself, and modify it, without losing the essence that is central to it.

Let us next understand the nature of the connection between patterns.
The patterns are ordered, beginning with the very largest, for regions and towns, then working down through neighborhoods, clusters of buildings, buildings, rooms and alcoves, ending finally with details of construction.

This order, which is presented as a straight linear sequence, is essential to the way the language works. It is presented, and explained more fully, in the next section. What is most important about this sequence, is that it is based on the connections between the patterns. Each pattern is connected to certain “larger” patterns which come above it in the language; and to certain “smaller” patterns which come below it in the language. The pattern helps to complete those larger patterns which are “above” it, and is itself completed by those smaller patterns which are “below” it.

Thus, for example, you will find that the pattern accessible green (60), is connected first to certain larger patterns: subculture boundary (13), identifiable neighborhood (14), work community (41), and quiet backs (59). These appear on its first page. And it is also connected to certain smaller patterns: positive outdoor space (107), tree places (171), and garden wall (173). These appear on its last page.

What this means, is that identifiable neighborhood, subculture boundary, work community, and quiet backs are incomplete, unless they contain an accessible green; and that an accessible green is itself incomplete, unless it contains positive outdoor space, tree places, and a garden wall.

And what it means in practical terms is that, if you want to lay out a green according to this pattern, you must not only follow the instructions which describe the pattern itself, but must also try to embed the green within an identifiable neighborhood or in some subculture boundary, and in a way that helps to form quiet backs; and then you must work to complete the green by building in some positive outdoor space, tree places, and a garden wall.

In short, no pattern is an isolated entity. Each pattern can exist in the world, only to the extent that is supported by other patterns: the larger patterns in which it is embedded, the patterns of the same size that surround it, and the smaller patterns which are embedded in it.

This is a fundamental view of the world. It says that when you build a thing you cannot merely build that thing in isolation, but must also repair the world around it, and within it, so that the larger world at that one place becomes more coherent, and more whole; and the thing which you make takes its place in the web of nature, as you make it.

Now we explain the nature of the relation between problems and solutions, within the individual patterns.

Each solution is stated in such a way that it gives the essential field of relationships needed to solve the problem, but in a very general and abstract way—so that you can solve the problem for yourself, in your own way, by adapting it to your preferences, and the local conditions at the place where you are making it.

For this reason, we have tried to write each solution in a way which imposes nothing on you. It contains only those essentials which cannot be avoided if you really
we have called it "A Pattern Language" with the emphasis on the word "A," and how we imagine this pattern language might be related to the countless thousands of other languages we hope that people will make for themselves, in the future.

*The Timeless Way of Building* says that every society which is alive and whole, will have its own unique and distinct pattern language; and further, that every individual in such a society will have a unique language, shared in part, but which as a totality is unique to the mind of the person who has it. In this sense, in a healthy society there will be as many pattern languages as there are people—even though these languages are shared and similar.

The question then arises: What exactly is the status of this published language? In what frame of mind, and with what intention, are we publishing this language here? The fact that it is published as a book means that many thousands of people can use it. Is it not true that there is a danger that people might come to rely on this one printed language, instead of developing their own languages, in their own minds?

The fact is, that we have written this book as a first step in the society-wide process by which people will gradually become conscious of their own pattern languages, and work to improve them. We believe, and have explained in *The Timeless Way of Building*, that the languages which people have today are so brutal, and so fragmented, that most people no longer have any language to speak of at all—and what they do have is not based on human, or natural considerations.

We have spent years trying to formulate this language, in the hope that when a person uses it, he will be so impressed by its power, and so joyful in its use, that he will understand again, what it means to have a living language of this kind. If we only succeed in that, it is possible that each person may once again embark on the construction and development of his own language—perhaps taking the language printed in this book, as a point of departure.

And yet, we do believe, of course, that this language which is printed here is something more than a manual, or a teacher, or a version of a possible pattern language. Many of the patterns here are archetypal—so deep, so deeply rooted in the nature of things, that it seems likely that they will be a part of human nature, and human action, as much in five hundred years, as they are today. We doubt very much whether anyone could construct a valid pattern language, in his own mind, which did not include the pattern arches (119) for example, or the pattern alcoves (179).

In this sense, we have also tried to penetrate, as deep as we are able, into the nature of things in the environment: and hope that a great part of this language, which we print here, will be a core of any sensible human pattern language, which any person constructs for himself, in his own mind. In this sense, at least a part of the language we have presented here, is the archetypal core of all possible pattern languages, which can make people feel alive and human.
SUMMARY OF THE LANGUAGE

A pattern language has the structure of a network. This is explained fully in The Timeless Way of Building. However, when we use the network of a language, we always use it as a sequence, going through the patterns, moving always from the larger patterns to the smaller, always from the ones which create structures, to the ones which then embellish those structures, and then to those which embellish the embellishments.

Since the language is in truth a network, there is no one sequence which perfectly captures it. But the sequence which follows, captures the broad sweep of the full network; in doing so, it follows a line, dips down, dips up again, and follows an irregular course, a little like a needle following a tapestry.

The sequence of patterns is both a summary of the language, and at the same time, an index to the patterns. If you read through the sentences which connect the groups of patterns to one another, you will get an overview of the whole language. And once you get this overview, you will then be able to find the patterns which are relevant to your own project.

And finally, as we shall explain in the next section, this sequence of patterns is also the “base map,” from which you can make a language for your own project, by choosing the patterns which are most useful to you, and leaving them more or less in the order that you find them printed here.

+++ We begin with that part of the language which defines a town or community. These patterns can never be “designed” or “built” in one fell swoop—but patient piece-meal growth, designed in such a way that every individual act is always helping to create or generate these larger global patterns, will, slowly and surely, over the years, make a community that has these global patterns in it.

1. INDEPENDENT REGIONS

within each region work toward those regional policies which will protect the land and mark the limits of the cities;

2. THE DISTRIBUTION OF TOWNS

3. CITY COUNTRY FINGERS

4. AGRICULTURAL VALLEYS

5. LACE OF COUNTRY STREETS

6. COUNTRY TOWNS

7. THE COUNTRYSIDE
through city policies, encourage the piecemeal forma-
tion of those major structures which define the city;

8. MOSAIC OF SUBCULTURES
9. SCATTERED WORK
10. MAGIC OF THE CITY
11. LOCAL TRANSPORT AREAS

build up these larger city patterns from the grass roots,
through action essentially controlled by two levels of
self-governing communities, which exist as physically
identifiable places;

12. COMMUNITY OF 7000
13. SUBCULTURE BOUNDARY
14. IDENTIFIABLE NEIGHBORHOOD
15. NEIGHBORHOOD BOUNDARY

connect communities to one another by encouraging the
growth of the following networks;

16. WEB OF PUBLIC TRANSPORTATION
17. RING ROADS
18. NETWORK OF LEARNING
19. WEB OF SHOPPING
20. MINI-BUSES

establish community and neighborhood policy to con-
control the character of the local environment according to
the following fundamental principles;

21. FOUR- Story LIMIT

22. NINE PER CENT PARKING
23. PARALLEL ROADS
24. SACRED SITES
25. ACCESS TO WATER
26. LIFE CYCLE
27. MEN AND WOMEN

both in the neighborhoods and the communities, and in
between them, in the boundaries, encourage the forma-
tion of local centers;

28. ECCENTRIC NUCLEUS
29. DENSITY RINGS
30. ACTIVITY NODES
31. PROMENADE
32. SHOPPING STREET
33. NIGHT LIFE
34. INTERCHANGE

around these centers, provide for the growth of housing
in the form of clusters, based on face-to-face human
groups;

35. HOUSEHOLD MIX
36. DEGREES OF PUBLICNESS
37. HOUSE CLUSTER
38. ROW HOUSES
39. HOUSING HILL
40. OLD PEOPLE EVERYWHERE
between the house clusters, around the centers, and especially in the boundaries between neighborhoods, encourage the formation of work communities;

41. WORK COMMUNITY
42. INDUSTRIAL RIBBON
43. UNIVERSITY AS A MARKETPLACE
44. LOCAL TOWN HALL
45. NECKLACE OF COMMUNITY PROJECTS
46. MARKET OF MANY SHOPS
47. HEALTH CENTER
48. HOUSING IN BETWEEN

between the house clusters and work communities, allow the local road and path network to grow informally, piecemeal;

49. LOOPED LOCAL ROADS
50. T JUNCTIONS
51. GREEN STREETS
52. NETWORK OF PATHS AND CARS
53. MAIN GATEWAYS
54. ROAD CROSSING
55. RAISED WALK
56. BIKE PATHS AND RACKS
57. CHILDREN IN THE CITY

in the communities and neighborhoods, provide public open land where people can relax, rub shoulders and renew themselves;

58. CARNIVAL
59. QUIET BACKS
60. ACCESSIBLE GREEN
61. SMALL PUBLIC SQUARES
62. HIGH PLACES
63. DANCING IN THE STREET
64. POOLS AND STREAMS
65. BIRTH PLACES
66. HOLY GROUND

in each house cluster and work community, provide the smaller bits of common land, to provide for local versions of the same needs;

67. COMMON LAND
68. CONNECTED PLAY
69. PUBLIC OUTDOOR ROOM

70. GRAVE SITES
71. STILL WATER
72. LOCAL SPORTS
73. ADVENTURE PLAYGROUND
74. ANIMALS

within the framework of the common land, the clusters, and the work communities encourage transformation of
SUMMARY OF THE LANGUAGE

the smallest independent social institutions: the families, workgroups, and gathering places. The family, in all its forms;

75. THE FAMILY
76. HOUSE FOR A SMALL FAMILY
77. HOUSE FOR A COUPLE
78. HOUSE FOR ONE PERSON
79. YOUR OWN HOME

the workgroups, including all kinds of workshops and offices and even children’s learning groups;

80. SELF-GOVERNING WORKSHOPS AND OFFICES
81. SMALL SERVICES WITHOUT RED TAPE
82. OFFICE CONNECTIONS
83. MASTER AND APPRENTICES
84. TEENAGE SOCIETY
85. SHOPFRONT SCHOOLS
86. CHILDREN’S HOME

the local shops and gathering places.

87. INDIVIDUALLY OWNED SHOPS
88. STREET CAFE
89. CORNER GROCERY
90. BEER HALL
91. TRAVELER’S INN
92. BUS STOP

93. FOOD STANDS
94. SLEEPING IN PUBLIC

This completes the global patterns which define a town or a community. We now start that part of the language which gives shape to groups of buildings, and individual buildings, on the land, in three dimensions. These are the patterns which can be "designed" or "built"—the patterns which define the individual buildings and the space between buildings; where we are dealing for the first time with patterns that are under the control of individuals or small groups of individuals, who are able to build the patterns all at once.

The first group of patterns helps to lay out the overall arrangement of a group of buildings: the height and number of these buildings, the entrances to the site, main parking areas, and lines of movement through the complex;

95. BUILDING COMPLEX
96. NUMBER OF STORIES
97. SHIELDED PARKING
98. CIRCULATION REALMS
99. MAIN BUILDING
100. PEDESTRIAN STREET
101. BUILDING THOROUGHFARE
102. FAMILY OF ENTRANCES
103. SMALL PARKING LOTS
SUMMARY OF THE LANGUAGE

fix the position of individual buildings on the site, within the complex, one by one, according to the nature of the site, the trees, the sun: this is one of the most important moments in the language;

104. SITE REPAIR
105. SOUTH FACING OUTDOORS
106. POSITIVE OUTDOOR SPACE
107. WINGS OF LIGHT
108. CONNECTED BUILDINGS
109. LONG THIN HOUSE

within the buildings' wings, lay out the entrances, the gardens, courtyards, roofs, and terraces: shape both the volume of the buildings and the volume of the space between the buildings at the same time—remembering that indoor space and outdoor space, yin and yang, must always get their shape together;

110. MAIN ENTRANCE
111. HALF-HIDDEN GARDEN
112. ENTRANCE TRANSITION
113. CAR CONNECTION
114. HIERARCHY OF OPEN SPACE
115. COURTYARDS WHICH LIVE
116. CASCADE OF ROOFS
117. SHELTERING ROOF
118. ROOF GARDEN

SUMMARY OF THE LANGUAGE

when the major parts of buildings and the outdoor areas have been given their rough shape, it is the right time to give more detailed attention to the paths and squares between the buildings;

119. ARCades
120. PATHS AND GOALS
121. PATH SHAPE
122. BUILDING FRONTS
123. PEDESTRIAN DENSITY
124. ACTIVITY POCKETS
125. STAIR SEATS
126. SOMETHING ROUGHLY IN THE MIDDLE

now, with the paths fixed, we come back to the buildings: within the various wings of any one building, work out the fundamental gradients of space, and decide how the movement will connect the spaces in the gradients;

127. INTIMACY GRADIENT
128. INDOOR SUNLIGHT
129. COMMON AREAS AT THE HEART
130. ENTRANCE ROOM
131. THE FLOW THROUGH ROOMS
132. SHORT PASSAGES
133. STAIRCASE AS A STAGE
134. ZEN VIEW
135. TAPESTRY OF LIGHT AND DARK
SUMMARY OF THE LANGUAGE

within the framework of the wings and their internal gradients of space and movement, define the most important areas and rooms. First, for a house;

136. COUPLE'S REALM
137. CHILDREN'S REALM
138. SLEEPING TO THE EAST
139. FARMHOUSE KITCHEN
140. PRIVATE TERRACE ON THE STREET
141. A ROOM OF ONE'S OWN
142. SEQUENCE OF SITTING SPACES
143. BED CLUSTER
144. BATHING ROOM
145. BULK STORAGE

then the same for offices, workshops, and public buildings;

146. FLEXIBLE OFFICE SPACE
147. COMMUNAL EATING
148. SMALL WORK GROUPS
149. RECEPTION WELCOMES YOU
150. A PLACE TO WAIT
151. SMALL MEETING ROOMS
152. HALF-PRIVATE OFFICE

add those small outbuildings which must be slightly independent from the main structure, and put in the access from the upper stories to the street and gardens;

prepare to knit the inside of the building to the outside, by treating the edge between the two as a place in its own right, and making human details there;

159. LIGHT ON TWO SIDES OF EVERY ROOM
160. BUILDING EDGE
161. SUNNY PLACE
162. NORTH FACE
163. OUTDOOR ROOM
164. STREET WINDOWS
165. OPENING TO THE STREET
166. GALLERY SURROUND

✓ 167. SIX-FOOT BALCONY
168. CONNECTION TO THE EARTH

decide on the arrangement of the gardens, and the places in the gardens;

169. TERRACED SLOPE
170. FRUIT TREES
171. TREE PLACES
SUMMARY OF THE LANGUAGE

172. GARDEN GROWING WILD
173. GARDEN WALL
174. TRELLISED WALK
175. GREENHOUSE
176. GARDEN SEAT
177. VEGETABLE GARDEN
178. COMPOST

go back to the inside of the building and attach the necessary minor rooms and alcoves to complete the main rooms;

179. ALCOVES
180. WINDOW PLACE
181. THE FIRE
182. EATING ATMOSPHERE
183. WORKSPACE ENCLOSURE
184. COOKING LAYOUT
185. SITTING CIRCLE
186. COMMUNAL SLEEPING
187. MARRIAGE BED
188. BED ACOVE
189. DRESSING ROOM

fine tune the shape and size of rooms and alcoves to make them precise and buildable;

190. CEILING HEIGHT VARIETY

SUMMARY OF THE LANGUAGE

191. THE SHAPE OF INDOOR SPACE
192. WINDOWS OVERLOOKING LIFE
193. HALF-OPEN WALL
194. INTERIOR WINDOWS
195. STAIRCASE VOLUME
196. CORNER DOORS

give all the walls some depth, wherever there are to be alcoves, windows, shelves, closets, or seats;

197. THICK WALLS
198. CLOSETS BETWEEN ROOMS
199. SUNNY COUNTER
200. OPEN SHELVES
201. WAIST-HIGH SHELF
202. BUILT-IN SEATS
203. CHILD CAVES
204. SECRET PLACE

At this stage, you have a complete design for an individual building. If you have followed the patterns given, you have a scheme of spaces, either marked on the ground, with stakes, or on a piece of paper, accurate to the nearest foot or so. You know the height of rooms, the rough size and position of windows and doors, and you know roughly how the roofs of the building, and the gardens are laid out.

The next, and last part of the language, tells how to
Summary of the Language

Make a buildable building directly from this rough scheme of spaces, and tells you how to build it, in detail.

Before you lay out structural details, establish a philosophy of structure which will let the structure grow directly from your plans and your conception of the buildings;

205. Structure follows social spaces
206. Efficient structure
207. Good materials
208. Gradual stiffening

Within this philosophy of structure, on the basis of the plans which you have made, work out the complete structural layout; this is the last thing you do on paper, before you actually start to build;

209. Roof layout
210. Floor and ceiling layout
211. Thickening the outer walls
212. Columns at the corners
213. Final column distribution

Put stakes in the ground to mark the columns on the site, and start erecting the main frame of the building according to the layout of these stakes;

214. Root foundations
215. Ground floor slab
216. Box columns

Summary of the Language

217. Perimeter beams
218. Wall membranes
219. Floor-ceiling vaults
220. Roof vaults

Within the main frame of the building, fix the exact positions for openings—the doors and windows—and frame these openings;

221. Natural doors and windows
222. Low sill
223. Deep reveals
224. Low doorway
225. Frames as thickened edges

As you build the main frame and its openings, put in the following subsidiary patterns where they are appropriate;

226. Column place
227. Column connection
228. Stair vault
229. Duct space
230. Radiant heat
231. Dormer windows
232. Roof caps

Put in the surfaces and indoor details;

233. Floor surface
234. Lapped outside walls
SUMMARY OF THE LANGUAGE

235. SOFT INSIDE WALLS
236. WINDOWS WHICH OPEN WIDE
237. SOLID DOORS WITH GLASS
238. FILTERED LIGHT
239. SMALL PANES
240. HALF-INCH TRIM

build outdoor details to finish the outdoors as fully as the indoor spaces;

241. SEAT SPOTS
242. FRONT DOOR BENCH
243. SITTING WALL
244. CANVAS ROOFS
245. RAISED FLOWERS
246. CLIMBING PLANTS
247. PAVING WITH CRACKS BETWEEN THE STONES
248. SOFT TILE AND BRICK

complete the building with ornament and light and color and your own things;

249. ORNAMENT
250. WARM COLORS
251. DIFFERENT CHAIRS
252. POOLS OF LIGHT
253. THINGS FROM YOUR LIFE

CHOOSING A LANGUAGE FOR YOUR PROJECT

All 253 patterns together form a language. They create a coherent picture of an entire region, with the power to generate such regions in a million forms, with infinite variety in all the details.

It is also true that any small sequence of patterns from this language is itself a language for a smaller part of the environment; and this small list of patterns is then capable of generating a million parks, paths, houses, workshops, or gardens.

For example, consider the following ten patterns:

PRIVATE TERRACE ON THE STREET (140)
SUNNY PLACE (161)
OUTDOOR ROOM (163)
SIX-FOOT BALCONY (167)
PATHS AND GOALS (120)
CEILING HEIGHT VARIETY (190)
COLUMNS AT THE CORNERS (212)
FRONT DOOR BENCH (242)
RAISED FLOWERS (245)
DIFFERENT CHAIRS (251)

This short list of patterns is itself a language: it is one of a thousand possible languages for a porch, at the front of a house. One of us chose this small language, to build
CHOOSING A LANGUAGE FOR YOUR SUBJECT

The old porch. They had to stay where they are, because they hold the roof up. But, following columns at the corners (212), the platform was very carefully tailored to their positions—so that the columns help define the social spaces on either side of them. Finally, we put a couple of flower boxes next to the “front door bench”—it’s nice to smell them when you sit there—according to raised flowers (245). And the old chairs you can see in the porch are different chairs (251).

You can see, from this short example, how powerful and simple a pattern language is. And you are now, perhaps ready to appreciate how careful you must be, when you construct a language for yourself and your own project.

The finished porch

The character of the porch is given by the ten patterns in this short language. In just this way, each part of the environment is given its character by the collection of patterns which we choose to build into it. The character of what you build, will be given to it by the language of patterns you use, to generate it.

CHOOSING A LANGUAGE FOR YOUR SUBJECT

a porch onto the front of his house. This is the way the language, and its patterns, helped to generate this porch.

I started with private terrace on the street (140). That pattern calls for a terrace, slightly raised, connected to the house, and on the street side. Sunny place (161) suggests that a special place on the sunny side of the yard should be intensified and made into a place by the use of a patio, balcony, outdoor room, etc. I used these two patterns to locate a raised platform on the south side of the house.

To make this platform into an outdoor room (163), I put it half under the existing roof overhang, and kept a mature pyracanthus tree right smack in the middle of the platform. The overhead foliage of the tree added to the roof-like enclosure of the space. I put a wind screen of fixed glass on the west side of the platform too, to give it even more enclosure.

I used six-foot balcony (167) to determine the size of the platform. But this pattern had to be used judiciously and not blindly—the reasoning for the pattern has to do with the minimum space required for people to sit comfortably and carry on a discussion around a small side-table. Since I wanted space for at least two of these conversation areas—one under the roof for very hot or rainy days, and one out under the sky for days when you wanted to be full in the sun, the balcony had to be made 12 x 12 feet square.

Now paths and goals (120): Usually, this pattern deals with large paths in a neighborhood, and comes much earlier in a language. But I used it in a special way. It says that the paths which naturally get formed by people’s walking, on the land, should be preserved and intensified. Since the path to our front door cut right across the corner of the place where I had planned to put the platform, I cut the corner of the platform off.

The height of the platform above the ground was determined by ceiling height variety (190). By building the platform approximately one foot above the ground line, the ceiling height of the covered portion came out at between 6 and 7 feet—just right for a space as small as this. Since this height above the ground level is just about right for sitting, the pattern front door bench (242) was automatically satisfied.

There were three columns standing, supporting the roof over
CHOOSING A LANGUAGE FOR YOUR SUBJECT

For this reason, of course, the task of choosing a language for your project is fundamental. The pattern language we have given here contains 253 patterns. You can therefore use it to generate an almost unimaginably large number of possible different smaller languages, for all the different projects you may choose to do, simply by picking patterns from it.

We shall now describe a rough procedure by which you can choose a language for your own project, first by taking patterns from this language we have printed here, and then by adding patterns of your own.

1. First of all, make a copy of the master sequence (pages xix–xxxiv) on which you can tick off the patterns which will form the language for your project. If you don’t have access to a copying machine, you can tick off patterns in the list printed in the book, use paper clips to mark pages, write your own list, use paper markers—whatever you like. But just for now, to explain it clearly, we shall assume that you have a copy of the list in front of you.

2. Scan down the list, and find the pattern which best describes the overall scope of the project you have in mind. This is the starting pattern for your project. Tick it. (If there are two or three possible candidates, don’t worry: just pick the one which seems best: the others will fall in place as you move forward.)

3. Turn to the starting pattern itself, in the book, and read it through. Notice that the other patterns mentioned by name at the beginning and at the end, of the pattern you are reading, are also possible candidates for your language. The ones at the beginning will tend to be “larger” than your project. Don’t include them, unless

you have the power to help create these patterns, at least in a small way, in the world around your project. The ones at the end are “smaller.” Almost all of them will be important. Tick all of them, on your list, unless you have some special reason for not wanting to include them.

4. Now your list has some more ticks on it. Turn to the next highest pattern on the list which is ticked, and open the book to that pattern. Once again, it will lead you to other patterns. Once again, tick those which are relevant—especially the ones which are “smaller” that come at the end. As a general rule, do not tick the ones which are “larger” unless you can do something about them, concretely, in your own project.

5. When in doubt about a pattern, don’t include it. Your list can easily get too long: and if it does, it will become confusing. The list will be quite long enough, even if you only include the patterns you especially like.

6. Keep going like this, until you have ticked all the patterns you want for your project.

7. Now, adjust the sequence by adding your own material. If there are things you want to include in your project, but you have not been able to find patterns which correspond to them, then write them in, at an appropriate point in the sequence, near other patterns which are of about the same size and importance. For example, there is no pattern for a sauna. If you want to include one, write it in somewhere near BATHING ROOM (144) in your sequence.

8. And of course, if you want to change any patterns, change them. There are often cases where you may have a personal version of a pattern, which is more true, or
more relevant for you. In this case, you will get the most "power" over the language, and make it your own most effectively, if you write the changes in, at the appropriate places in the book. And, it will be most concrete of all, if you change the name of the pattern too—so that it captures your own changes clearly.

Suppose now that you have a language for your project. The way to use the language depends very much on its scale. Patterns dealing with towns can only be implemented gradually, by grass roots action; patterns for a building can be built up in your mind, and marked out on the ground; patterns for construction must be built physically, on the site. For this reason we have given three separate instructions, for these three different scales. For towns, see page 3; for buildings, see page 463; for construction, see page 935.

The procedures for each of these three scales are described in much more detail with extensive examples, in the appropriate chapters of The Timeless Way of Building. For the town—see chapters 24 and 25; for an individual building—see chapters 20, 21, and 22; and for the process of construction which describes the way a building is actually built see chapter 23.
greater, and more personal things than any rose—and
the poem illuminates the person, and the rose, because of
this connection. The connection not only illuminates the
words, but also illuminates our actual lives.

O Rose thou art sick.
The invisible worm,
That flies in the night
In the howling storm:

Has found out thy bed
Of crimson joy:
And his dark secret love
Does thy life destroy.

WILLIAM BLAKE

The same exactly, happens in a building. Consider, for
example, the two patterns BATHING ROOM (144) and
STILL WATER (71). One defines a part of a house where
you can bathe yourself slowly, with pleasure, perhaps
in company; a place to rest your limbs, and to relax. The
other is a place in a neighborhood, where this is water
to gaze into, perhaps to swim in, where children can sail
boats, and splash about, which nourishes those parts of
ourselves which rely on water as one of the great
elements of the unconscious.

Suppose now, that we make a complex of buildings
where individual bathing rooms are somehow connected
to a common pond, or lake, or pool—where the bathing
room merges with this common place; where there is no
sharp distinction between the individual and family pro-
cesses of the bathing room, and the common pleasure
of the common pool. In this place, these two patterns
exist in the same space; they are identified; there is a
compression of the two, which requires less space, and
which is more profound than in a place where they are
merely side by side. The compression illuminates each
of the patterns, sheds light on its meaning; and also il-
uminates our lives, as we understand a little more about
the connections of our inner needs.

But this kind of compression is not only poetic and
profound. It is not only the stuff of poems and exotic
statements, but to some degree, the stuff of every English
sentence. To some degree, there is compression in every
single word we utter, just because each word carries the
whisper of the meanings of the words it is connected to.
Even “Please pass the butter, Fred” has some compres-
sion in it, because it carries overtones that lie in the con-
nections of these words to all the words which came be-
fore it.

Each of us, talking to our friends, or to our families,
makes use of these compressions, which are drawn out
from the connections between words which are given by
the language. The more we can feel all the connections
in the language, the more rich and subtle are the things
we say at the most ordinary times.

And once again, the same is true in building. The com-
pression of patterns into a single space, is not a poetic
and exotic thing, kept for special buildings which are
works of art. It is the most ordinary economy of space.
every garden is better, when all the patterns which it needs are compressed as far as it is possible for them to be. The building will be cheaper; and the meanings in it will be denser.

It is essential then, once you have learned to use the language, that you pay attention to the possibility of compressing the many patterns which you put together, in the smallest possible space. You may think of this process of compressing patterns, as a way to make the cheapest possible building which has the necessary patterns in it. It is, also, the only way of using a pattern language to make buildings which are poems.
freestanding carts, or built into the corners and crevices of existing buildings; they can be small huts, part of the fabric of the street.

3. The smell of the food is out in the street; the place can be surrounded with covered seats, sitting walls, places to lean and sip coffee, part of the larger scene, not sealed away in a plate glass structure, surrounded by cars. The more they smell, the better.

4. They are never franchises, but always operated by their owners. The best food always comes from family restaurants; and the best food in a foodstand always comes when people prepare the food and sell it themselves, according to their own ideas, their own recipes, their own choice.

Therefore:

Concentrate food stands where cars and paths meet—either portable stands or small huts, or built into the fronts of buildings, half-open to the street.

Treat these food stands as activity pockets (124) when they are part of a square; use canvas roofs to make a simple shelter over them—canvas roof (244); and keep them in line with the precepts of individually owned shops (87): the best food always comes from people who are in business for themselves, who buy the raw food, and prepare it in their own style. . . .
throughout the neighborhood there are natural public gathering places—ACTIVITY NODES (30), ROAD CROSSINGS (54), RAISED WALKS (55), SMALL PUBLIC SQUARES (61), BUS STOPS (92). All draw their life, to some extent, from the food stands, the hawkers, and the vendors who fill the street with the smell of food.

Many of our habits and institutions are bolstered by the fact that we can get simple, inexpensive food on the street, on the way to shopping, work, and friends.

The food stands which make the best food, and which contribute most to city life, are the smallest shacks and carts from which individual vendors sell their wares. Everyone has memories of them.

But in their place we now have shining hamburger kitchens, fried chicken shops, and pancake houses. They are chain operations, with no roots in the local community. They sell "plastic," mass-produced frozen food, and they generate a shabby quality of life around them. They are built to attract the eye of a person driving: the signs are huge; the light is bright neon. They are insensitive to the fabric of the community. Their parking lots around them kill the public open space.

If we want food in our streets contributing to the social life of the streets, not helping to destroy it, the food stands must be made and placed accordingly.

We propose four rules:

1. The food stands are concentrated at ROAD CROSSINGS (54) of the NETWORK OF PATHS AND CARS (52). It is possible to see them from cars and to expect them at certain kinds of intersections, but they do not have special parking lots around them—see NINE PER CENT PARKING (22).

2. The food stands are free to take on a character that is compatible with the neighborhood around them. They can be
... this pattern helps to make places like the interchange (34), small public squares (61), public outdoor rooms (69), street cafe (88), pedestrian street (100), building thoroughfare (101), a place to wait (150) completely public.

++++

It is a mark of success in a park, public lobby or a porch, when people can come there and fall asleep.

In a society which nurtures people and fosters trust, the fact that people sometimes want to sleep in public is the most natural thing in the world. If someone lies down on a pavement or a bench and falls asleep, it is possible to treat it seriously as a need. If he has no place to go—then, we, the people of the town, can be happy that he can at least sleep on the public paths and benches; and, of course, it may also be someone who does have a place to go, but happens to like napping in the street.

But our society does not invite this kind of behavior. In our society, sleeping in public, like loitering, is thought of as an act for criminals and destitutes. In our world, when homeless people start sleeping on public benches or in public buildings, upright citizens get nervous, and the police soon restore "public order."

Thus we cleared these difficult straits, my bicycle and I, together. But a little further on I heard myself hailed. I raised my head and saw a policeman. Elliptically speaking, for it was only later, by way of induction, or deduction, I forget which, that I knew what it was. What are you doing there? he said. I'm used to that question, I understood it immediately. Resting, I said. Resting, he said. Resting, I said. Will you answer my question? he cried. So it always is when I'm reduced to confabulation. I honestly believe I have answered the question I am asked and in reality I do nothing of the kind. I won't reconstruct the conversation in all its meanderings. It ended in my understanding that my way of resting, my attitude when at rest, astride my bicycle, my arms on the handlebars, my head on my arms, was a violation of I don't know what, public order, public decency... 

What is certain is this, that I never rested in that way again, my

feet obscenely resting on the earth, my arms on the handlebars and on my arms my head, rocking and abandoned. It is indeed a deplorable sight, a deplorable example, for the people, who so need to be encouraged, in their bitter toil, and to have before their eyes manifestations of strength only, of courage and joy, without which they might collapse, at the end of the day, and roll on the ground. (Samuel Beckett, Molloy.)

It seems, at first, as though this is purely a social problem and that it can only be changed by changing people's attitudes. But the fact is, that these attitudes are largely shaped by the environment itself. In an environment where there are very few places to lie down and sleep people who sleep in public seem unnatural, because it is so rare.

Therefore:

Keep the environment filled with ample benches, comfortable places, corners to sit on the ground, or lie in comfort in the sand. Make these places relatively sheltered, protected from circulation, perhaps up a step, with seats and grass to slump down upon, read the paper and doze off.

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Above all, put the places for sleeping along building edges (160); make seats there, and perhaps even a bed alcove or two in public might be a nice touch—bed alcove (188), seat spots (241); but above all, it will hinge on the attitudes which people have—do anything you can to create trust, so that people feel no fear in going to sleep in public and so that other people feel no fear of people sleeping in the street.
BUILDINGS

Note that this pattern was developed in the San Francisco Bay Area. Of course, its significance varies as latitude and climate change. In Eugene, Oregon, for example, with a rather rainy climate, at about 50° latitude, the pattern is even more essential; the south faces of the buildings are the most valuable outdoor spaces on sunny days. In desert climates, the pattern is less important; people will want to stay in outdoor spaces that have a balance of sun and shade. But remember that in one way or another, this pattern is absolutely fundamental.

Therefore:

Always place buildings to the north of the outdoor spaces that go with them, and keep the outdoor spaces to the south. Never leave a deep band of shade between the building and the sunny part of the outdoors.

building to the north

outdoors south

Let half-hidden garden (111) influence the position of the outdoors too. Make the outdoor spaces positive—positive outdoor space (106)—and break the building into narrow wings—wings of light (107). Keep the most important rooms to the south of these wings—indoor sunlight (128); and keep storage, parking, etc., to the north—north face (162). When the building is more developed, you can concentrate on the special sunny areas where the outdoors and building meet, and make definite places there, where people can sit in the sun—sunny place (161). . . .
... in making south facing outdoors (105) you must both choose the place to build, and also choose the place for the outdoors. You cannot shape the one without the other. This pattern gives you the geometric character of the outdoors; the next one—wings of light (107)—gives you the complementary shape of the indoors.

* * *

Outdoor spaces which are merely “left over” between buildings will, in general, not be used.

There are two fundamentally different kinds of outdoor space: negative space and positive space. Outdoor space is negative when it is shapeless, the residue left behind when buildings—which are generally viewed as positive—are placed on the land. An outdoor space is positive when it has a distinct and definite shape, as definite as the shape of a room, and when its shape is as important as the shapes of the buildings which surround it. These two kinds of space have entirely different plan geometries, which may be most easily distinguished by their figure-ground reversal.

If you look at the plan of an environment where outdoor spaces are negative, you see the buildings as figure, and the outdoor space as ground. There is no reversal. It is impossible to see the outdoor space as figure, and the buildings as ground. If you look at the plan of an environment where outdoor spaces are positive, you may see the buildings as figure, and outdoor spaces as ground—and, you may also see the outdoor spaces as figure against the ground of the buildings. The plans have figure-ground reversal.

Another way of defining the difference between “positive” and “negative” outdoor spaces is by their degree of enclosure and their degree of convexity.

In mathematics, a space is convex when a line joining any two points inside the space itself lies totally inside the space. It is nonconvex, when some lines joining two points lie at least partly outside the space. According to this definition, the following irregular squarish space is convex and therefore positive; but the L-shaped space is not convex or positive, because the line joining its two end points cuts across the corner and therefore goes outside the space.

![Convex and nonconvex.](image)

Positive spaces are partly enclosed, at least to the extent that their areas seem bounded (even though they are not, in fact, because there are always paths leading out, even whole sides open), and the “virtual” area which seems to exist is convex. Negative spaces are so poorly defined that you cannot really tell where their boundaries are, and to the extent that you can tell, the shapes are nonconvex.

![This space can be felt: it is distinct—a place... and it is convex. This space is vague, amorphous, “nothing.”](image)

Now, what is the functional relevance of the distinction between “positive” and “negative” outdoor spaces. We put forward the following hypothesis. People feel comfortable in spaces which are “positive” and use these spaces; people feel relatively uncomfortable in spaces which are “negative” and such spaces tend to remain unused.
The case for this hypothesis has been most fully argued by Camillo Sitte, in City Planning According to Artistic Principle, (republished by Random House in 1965). Sitte has analyzed a very large number of European city squares, distinguishing those which seem used and lively from those which don't, trying to account for the success of the lively squares. He shows, with example after example, that the successful ones—those which are greatly used and enjoyed—have two properties. On the one hand, they are partly enclosed; on the other hand, they are also open to one another, so that each one leads into the next.

The fact that people feel more comfortable in a space which is at least partly enclosed is hard to explain. To begin with, it is obviously not always true. For example, people feel very comfortable indeed on an open beach, or on a rolling plain, where there may be no enclosure at all. But in the smaller outdoor spaces—gardens, parks, walks, plazas—enclosure does, for some reason, seem to create a feeling of security.

It seems likely that the need for enclosure goes back to our most

primitive instincts. For example, when a person looks for a place to sit down outdoors, he rarely chooses to sit exposed in the middle of an open space—he usually looks for a tree to put his back against; a hollow in the ground, a natural cleft which will partly enclose and shelter him. Our studies of people's space needs in workplaces show a similar phenomenon. To be comfortable, a person wants a certain amount of enclosure around him and his work—but not too much—see Workspace Enclosure (183). Clare Cooper has found the same thing in her study of parks: people seek areas which are partially enclosed and partly open—not too open, not too enclosed (Clare Cooper, Open Space Study, San Francisco Urban Design Study, San Francisco City Planning Dept., 1969).

Most often, positive outdoor space is created at the same time that other patterns are created. The following photograph shows one of the few places in the world where a considerable amount of building had no other purpose whatsoever except to create a positive outdoor space. It somehow underlines the pattern's urgency.

The square at Nancy.

When open space is negative, for example, L-shaped—it is always possible to place small buildings, or building projections, or walls in such a way as to break the space into positive pieces.

Transform this . . . . to this.
And when an existing open space is too enclosed, it may be possible to break a hole through the building to open the space up.

Transform this . . . . to this.

Therefore:

Make all the outdoor spaces which surround and lie between your buildings positive. Give each one some degree of enclosure; surround each space with wings of buildings, trees, hedges, fences, arcades, and trellised walks, until it becomes an entity with a positive quality and does not spill out indefinitely around corners.

Place wings of light (107) to form the spaces. Use open trellised walks, walls, and trees to close off spaces which are too exposed—tree places (171), garden wall (173), trellised walk (174); but make sure that every space is always open to some larger space, so that it is not too enclosed—hierarchy of open space (114). Use building fronts (122) to help create the shape of space. Complete the positive character of the outdoors by making places all around the edge of buildings, and so make the outdoors as much a focus of attention as the buildings—building edge (160). Apply this pattern to courtyards which live (115), roof gardens (118), path shape (121), outdoor room (163), garden growing wild (172).
ward into the open space between the paths, and contain activities which make it natural for people to pause and get involved.

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Lead paths between the pockets of activity—paths and goals (120)—and shape the pockets themselves with arcades and seats, and sitting walls, and columns and trellises—arcades (119), outdoor room (163), trellised walk (174), seat spots (241), sitting wall (243); above all shape them with the fronts of buildings—building fronts (122); and include, within the pockets, newstands—bus stops (92), food stands (93), gardens, games, small shops, street cafes (88), and a place to wait (150). . . .
... we know that paths and larger public gathering places need a definite shape and a degree of enclosure, with people looking into them, not out of them—small public squares (61), positive outdoor space (106), path shape (121). Stairs around the edge do it just perfectly; and they also help embellish family of entrances (102), main entrances (110), and open stairs (158).

+++ 

Wherever there is action in a place, the spots which are the most inviting, are those high enough to give people a vantage point, and low enough to put them in action.

On the one hand, people seek a vantage point from which they can take in the action as a whole. On the other hand, they still want to be part of the action; they do not want to be mere onlookers. Unless a public space provides for both these tendencies, a lot of people simply will not stay there.

For a person looking at the horizon, the visual field is far larger below the horizon than above it. It is therefore clear that anybody who is “people-watching” will naturally try to take up a position a few feet above the action.

The trouble is that this position will usually have the effect of removing a person from the action. Yet most people want to be able to take the action in and to be part of it at the same time. This means that any places which are slightly elevated must also be within easy reach of passers-by, hence on circulation paths, and directly accessible from below.

The bottom few steps of stairs, and the balusters and rails along stairs, are precisely the kinds of places which resolve these tendencies. People sit on the edges of the lower steps, if they are wide enough and inviting, and they lean against the rails.

There is a simple kind of evidence, both for the reality of the forces described here and for the value of the pattern. When there are areas in public places which are both slightly raised and very accessible, people naturally gravitate toward them.

Stepped cafe terraces, steps surrounding public plazas, stepped porches, stepped statues and seats, are all examples.

Therefore:

In any public place where people loiter, add a few steps at the edge where stairs come down or where there is a change of level. Make these raised areas immediately accessible from below, so that people may congregate and sit to watch the goings-on.

public place

+++

Give the stair seats the same orientation as seat spots (241). Make the steps out of wood or tile or brick so that they wear with time, and show the marks of feet, and are soft to the touch for people sitting on them—soft tile and brick (248); and make the steps connect directly to surrounding buildings—connection to the earth (168) ...
... once the building's major rooms are in position, we have
to fix its actual shape; and this we do essentially with the position
of the edge. The edge has got its rough position already from
the overall form of the building—WINGS OF LIGHT (107), POSI-
TIVE OUTDOOR SPACE (106), LONG THIN HOUSE (109), CASCADE
OF ROOFS (116). This pattern now completes the work of WINGS
OF LIGHT (107), by placing each individual room exactly where
it needs to be to get the light. It forms the exact line of the
building edge, according to the position of these individual
rooms. The next pattern starts to shape the edge.

+++ +

When they have a choice, people will always gravitate to
those rooms which have light on two sides, and leave the
rooms which are lit only from one side unused and empty.

This pattern, perhaps more than any other single pattern,
determines the success or failure of a room. The arrangement of
daylight in a room, and the presence of windows on two sides, is
fundamental. If you build a room with light on one side only, you
can be almost certain that you are wasting your money. People
will stay out of that room if they can possibly avoid it. Of course,
if all the rooms are lit from one side only, people will have to use
them. But we can be fairly sure that they are subtly uncomfortable
there, always wishing they weren’t there, wanting to leave—just
because we are so sure of what people do when they do have the
choice.

Our experiments on this matter have been rather informal and
drawn out over several years. We have been aware of the idea for
some time—as have many builders. (We have even heard that
"light on two sides" was a tenet of the old Beaux Arts design
tradition.) In any case, our experiments were simple: over and
over again, in one building after another, wherever we happened
to find ourselves, we would check to see if the pattern held.
Were people in fact avoiding rooms lit only on one side, pre-
ferring the two-sided rooms—what did they think about it?
BUILDINGS

We have gone through this with our friends, in offices, in many homes—and overwhelmingly the two-sided pattern seems significant. People are aware, or half-aware of the pattern—they understand exactly what we mean.

With light on two sides . . . and without

If this evidence seems too haphazard, please try these observations yourself. Bear the pattern in mind, and examine all the buildings you come across in your daily life. We believe that you will find, as we have done, that those rooms you intuitively recognize as pleasant, friendly rooms have the pattern; and those you intuitively reject as unfriendly, unpleasant, are the ones which do not have the pattern. In short, this one pattern alone, is able to distinguish good rooms from unpleasant ones.

The importance of this pattern lies partly in the social atmosphere it creates in the room. Rooms lit on two sides, with natural light, create less glare around people and objects; this lets us see things more intricately; and most important, it allows us to read in detail the minute expressions that flash across people’s faces, the motion of their hands . . . and thereby understand, more clearly, the meaning they are after. The light on two sides allows people to understand each other.

In a room lit on only one side, the light gradient on the walls and floors inside the room is very steep, so that the part furthest from the window is uncomfortably dark, compared with the part near the window. Even worse, since there is little reflected light on the room’s inner surfaces, the interior wall immediately next to the window is usually dark, creating discomfort and glare against this light. In rooms lit on one side, the glare which surrounds people’s faces prevents people from understanding one another.

Although this glare may be somewhat reduced by supplementary artificial lighting, and by well-designed window reveals, the most simple and most basic way of overcoming glare, is to give every room two windows. The light from each window illuminates the wall surfaces just inside the other window, thus reducing the contrast between those walls and the sky outside. For details and illustrations, see R. G. Hopkinson, Architectural Physics: Lighting, London: Building Research Station, 1963, pp. 29, 103.

A supreme example of the complete neglect of this pattern is Le Corbusier’s Marseilles Block apartments. Each apartment unit is very long and relatively narrow, and gets all its light from one end, the narrow end. The rooms are very bright just at the windows and dark everywhere else. And, as a result, the glare created by the light-dark contrast around the windows is very disturbing.

In a small building, it is easy to give every room light on two sides: one room in each of the four corners of a house does it automatically.

In a slightly larger building, it is necessary to wrinkle the edge, turn corners, to get the same effect. Juxtaposition of large rooms and small, helps also.

Wrinkle the edge.

In an even larger building, it may be necessary to build in some sort of systematic widening in the plan or to convolute the edge still further, to get light on two sides for every room.
BUILDINGS

But of course, no matter how clever we are with the plan, no matter how carefully we convolute the building edge, sometimes it is just impossible. In these cases, the rooms can get the effect of light on two sides under two conditions. They can get it, if the room is very shallow—not more than about eight feet deep—with at least two windows side by side. The light bounces off the back wall, and bounces sideways between the two windows, so that the light still has the glare-free character of light on two sides.

And finally, if a room simply has to be more than eight feet deep, but cannot have light from two sides—then the problem can be solved by making the ceiling very high, by painting the walls very white, and by putting great high windows in the wall, set into very deep reveals, deep enough to offset the glare. Elizabethan dining halls and living rooms in Georgian mansions were often built like this. Remember, though, that it is very hard to make it work.

Therefore:

Locate each room so that it has outdoor space outside it on at least two sides, and then place windows in these outdoor walls so that natural light falls into every room from more than one direction.

each room has light on two sides

Don’t let this pattern make your plans too wild—otherwise you will destroy the simplicity of positive outdoor space (106), and you will have a terrible time roofing the building—roof

LAYOUT (209). Remember that it is possible to keep the essence of the pattern with windows on one side, if the room is unusually high, if it is shallow compared with the length of the window wall, the windows large, the walls of the room white, and massive deep reveals on the windows to make quite certain that the big windows, bright against the sky, do not create glare.

Place the individual windows to look onto something beautiful—windows overlooking life (192), natural doors and windows (221); and make one of the windows in the room a special one, so that a place gathers itself around it—window place (180). Use deep reveals (223) and filtered light (238). . . .