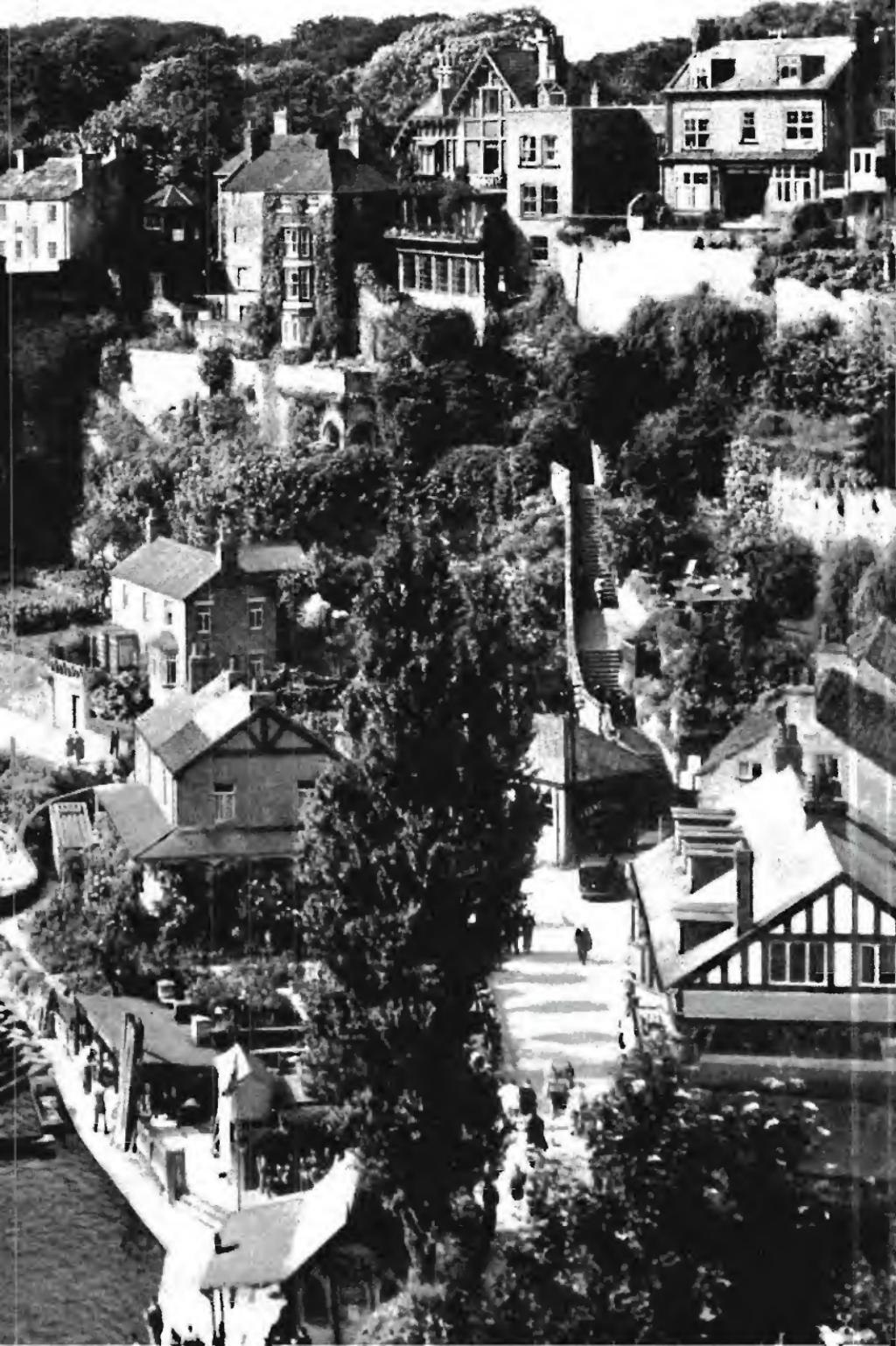


CHAPTER 24

THE PROCESS OF REPAIR

Next, several acts of building, each one done to repair and magnify the product of the previous acts, will slowly generate a larger and more complex whole than any single act can generate.







We know now, how a single act of building works. We know that any person can lay out a building for himself; that any group of people can do the same; and we know how the builders can then carry out a process of construction, which will make a unified organic whole, out of the stakes marked on the ground.

Now we shall see how several acts of building, in a row, will generate an even more coherent and more complex whole, piecemeal—by making sure that every act contributes to the order of the previous acts.

In theory, according to chapter 18, every act of building is, with respect to its larger context, an act of repair: a part of the much larger process in which several acts together generate the larger wholes from which a building complex or a town is made.

But so far we have not had an opportunity to see this clearly—because in chapters 19-23, we have been paying attention to the individual creative act as an act which makes something new.

Now we shall change the focus, and pay attention to each act, as an act of repair, within the larger whole.

No building is ever perfect.

Each building, when it is first built, is an attempt to make a self-maintaining whole configuration.

But our predictions are invariably wrong. People use buildings differently from the way they thought they would. And the larger the pieces become, the more serious this is.

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The process of design, in the mind's eye, or on the site, is an attempt to simulate in advance, the feeling and events which will emerge in the real building, and to create a configuration which is in repose with respect to these events.

But the prediction is all guesswork; the real events which happen there are always at least slightly different; and the larger the building is, the more likely the guesses are to be inaccurate.

It is therefore necessary to keep changing the buildings, according to the real events which actually happen there.

And the larger the complex of buildings, neighborhood, or town, the more essential it is for it to be built up gradually, from thousands of acts, self-correcting acts, each one improving and repairing the acts of the others.

Suppose, for instance, that some corner of your house is not as alive as you would like.

For example, suppose I look at the house, and realize that its garden is not working properly as a **HALF-HIDDEN GARDEN**, because although it is to one side of the house, there is not enough protection between the garden and the street. It needs some kind of wall.

And, suppose that I go further, and bearing in mind that work needs to be done to mend the barrier between the garden and the street, I examine the garden from the point of view of **PRIVATE TERRACE ON THE STREET**, and

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find it missing. Suppose that I decide I need to build a small brick terrace, at one side of my house, where it touches the garden, in order to repair this gap.

Now, if I have already decided that some kind of wall needs to be built to protect the garden where it is too open, it is only natural that I shall try to make the missing terrace in some way to link it to this missing wall.

In short, when I get a chance to start mending the garden, I can mend both these defective patterns with the same act of building. And the repairs I make are not just "repairs," but new designs, complex themselves, between the crevices of the first design.

Or suppose that you have built a small laboratory building.

It has a kitchen, a library, four labs, and a main entrance. You want to add a fifth laboratory to it, because you need more space.

Don't look for the best place right away. First, look at the existing building, and see what is wrong with it. There is a path where tin cans collect; a tree which is a beautiful tree, but somehow no one uses it; one of the four labs is always empty, there is nothing obviously wrong with it, but somehow no one goes there; the main entrance has no places to sit comfortably; the earth around one corner of the building is being eroded.

Now, look at all these things which are wrong, and build the fifth lab in such a way that it takes care of all these problems, and also does, for itself, what it has to do.

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Can you see how rich and various the parts of the building will be, when they are built like this?

The fifth lab will be unique, unlike any of the other labs. But not because you try hard to make it subtle, or beautiful, or arty. It comes about in the most obvious way, just because you are trying to be practical. Can you imagine how hard it is to make one little laboratory, about 20 feet by 20 feet, repair all these different problems at once?

It isn't impossible; but to do it you will have to stretch it here, extend it there, give it a special window here to make the tree more useful, bring the path around it here, to make the path with the tin cans less deserted, give it a door at just this spot, to help create a pleasant corner in the entrance, where people can wait.

So the richness and uniqueness of this little addition comes about in the simplest and most practical way possible. It happens almost by itself, just because you pay attention to the defects in the present building, and try hard to repair them.

Each act of building, which differentiates a part of space, needs to be followed soon by further acts of building, which further differentiate the space to make it still more whole.

This is commonplace in nature: and indeed, it is just this which always manages to make the parts of nature whole.

Consider the leaves on a tree. At first sight it seems as though the leaves are solid, and the air between the leaves

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is merely space. But the air between the leaves is as much a part of nature as the leaves themselves: it takes on shape as strongly as the leaves themselves; and like the leaves, it is given its shape by the influences which work on it.

Each leaf has a shape which is determined by the need for strength, the growth of the material, and the flowing of the sap within the leaf. But the air between two leaves is given its shape as definitely. If the leaves are too close together, the air between the leaves cannot act as a channel for the sunlight which the leaves need; and there may not be enough breeze there to ventilate the leaves; if the leaves are too far apart, the distribution of the leaves on the twigs and branches is inefficient, and the tree will not get enough sunlight to support it. Every part you look at is not only whole itself, but is part of a larger whole, has wholes around it, and is itself made up entirely of wholes.

This is essential to the way that nature works: and all of it is generated by the processes of successive differentiations, each one helping to fill gaps, and mend gaps in the whole.

When things are first built, the gaps between the parts are often left unwhole.

In the kind of world we have today, almost half the places in a building or a town are places “in between” the places where you are meant to be.

The dark narrow space between two houses, the corner of the kitchen which no one can reach, the area between the train tracks and the next door industry—these are

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obvious examples of places which are literally forgotten and left over.

And there are more remarkable examples, where spaces are actually intended to be left over.

Think about streets with cars parked on them, parking lots, long corridors, waiting rooms, the path between the front door and the street, the garage, the closet underneath the stairs, the bathroom, the windowless front hall of the house. All these places are made with the mistaken notion that you are only there in limbo, in between the moments of living—as if they were way-stations between the few places where you are actually meant to be alive.

But these gaps must be healed and made as whole as the parts on either side of them.

In a town or building which is whole, there are no places like this; and in a life which is truly lived, there are no moments like this either.

In a life which is truly lived, there are no moments which are “in between” or “out of life”—every moment is lived fully. The Zen master says “when I eat, I eat; when I drink, I drink; when I walk, I walk.” A building or a town which is alive, has the same quality.

In a building or a town which is alive, and which supports a life that is fully lived, there are no places which are way-stations between moments of living; every place is made in such a way that life can be savored fully there. Every square inch of it has some valuable purpose, and is able to support some moment in a person’s life which is

THE PROCESS OF REPAIR

truly lived; and for this reason every part of it is whole, and every place between two wholes is also whole.

Slowly, as the “process of repair” repairs the gaps between the wholes, the structure becomes complete and whole at every level.

This goes vastly beyond the normal conception of repair.

In the commonplace use of the word repair, we assume that when we repair something, we are essentially trying to get it back to its original state. This kind of repair is patching, conservative, static.

But in this new use of the word repair, we assume, instead, that every entity is changing constantly: and that at every moment we use the defects of the present state as the starting point for the definition of the new state.

When we repair something in this new sense, we assume that we are going to transform it, that new wholes will be born, that, indeed, the entire whole which is being repaired will become a different whole as the result of the repair.

In this sense, the idea of repair is creative, dynamic, open.

It assumes that we are constantly led to the creation of new wholes, by paying attention to the defects in the existing wholes, and trying to repair them. It is still true that every act helps to repair some larger, older whole; but the repair not only patches it—it also modifies it, transforms

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it, sets it on the road to becoming something else, entirely new.

In this framework, we gain an entirely new view of the process through which a sequence of acts of building generates a whole.

Broadly, what is happening is that there is, at each stage in the life of any part of the environment, a wholeness which is specific to that moment in its life; and that each new act of building, provided that it is done with an eye to making the overall whole still more whole, more alive, will transform that whole, and gradually give birth to new wholes.

In this sense, then, the idea of repair explains both how we can mend past defects in things, and also, at the same time, how it is possible to make and remake the world so that the cooperation of a number of acts of building, in sequence, also creates wholes which are complete, and live, at every moment of their history—yet always giving way, under the process of repair, to even newer wholes, which once again remake themselves at the next stage of the repair.

In order to see this clearly, let us imagine that there is somewhere a building complex, growing, over time.

Step by step, each act of building, which contributes to the growing whole, is also helping to repair or heal what is already there.

THE PROCESS OF REPAIR

Specifically, let us imagine a cluster of houses growing over time.

Each house starts with a small beginning—no more than a family kitchen, with a bed alcove off one end, and a kitchen counter.

All in all, no more than 300-500 square feet to start with.

Then, for the first few years, people add 100-200 square feet more each year.

First a bedroom perhaps; another bedroom; a workshop; a garden terrace; a full bathing room; arcades and porches; studio; a bigger sitting room, with a big fireplace; a garden shed.

And, at the same time common things are also built; they plant an avenue of trees; a small gazebo; a shared outdoor room; paving on the paths; closed-in garages; a communal workshop; a small fountain or a swimming hole. . . .

As the buildings reach maturity, the increments get smaller.

A bench; a sitting wall; a roof over the entrance; a railing on the terrace upstairs; a stair to the roof; a fishpond; a baywindow; an extra gate; a vegetable patch; a wall of shelves; a garden seat around the trunk of a growing tree. . . .

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Yet, at the same time, collectively, the houses begin to generate the larger patterns which define the cluster.

Each person begins to work with his neighbor, first the neighbor on one side, then the neighbor on the other side; and together they try to make the space between their houses beautiful. Of course, they start by eliminating obvious conflicts between windows, or cases where one house takes the sun from the next man's garden; but they also work out details according to the detailed patterns. For example, one group of people decide to make their entrances open off a small public garden, with a tree, and with an outdoor seat in it, facing the sun, and from which people can watch the distant outdoor room, according to the patterns TREE PLACES, OUTDOOR SEATS, and PUBLIC OUTDOOR ROOM.

For example, path shape says that a path must be a place, almost like a room, partly enclosed, with a middle, so that people feel comfortable staying there, not just walking through. Each group uses this pattern to make the paths outside their houses better shaped, with seats in them; and the pattern even affects the exact shape of the boundary wall where the houses meet the paths.

And PRIVATE TERRACE ON THE STREET says that each house should have a private terrace, near its living room, but placed so that one can see from it, into the public space of the street beyond, and wave or say hello to someone out there, without the privacy of the house being dis-

THE PROCESS OF REPAIR



The slow growth of twelve houses

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turbed. Each of the houses has such a terrace, and the way these terraces make the paths alive is also discussed and modified by the groups at each end of the cluster.

Slowly, at every level, the arrangement of wholes becomes so dense that there are no gaps between the wholes: every part, and every part between two parts, is whole.

In a house, the garden round the house is positive; the boundaries between house and garden are again positive. The thickness of the walls is positive; the wall which forms the enclosure between terrace and garden is again positive; a seat; while the interior walls are places too (shelves, niches, etc.); within the house, each room is, of course, a place; but to make this happen, each one has windows on two sides—with the result that the rooms take on an odd configuration, in plan—and every place between the rooms is once again a place. At the level of construction, we find the same. Every room has its corners marked by columns. Each column is again a visible coherent thing; the columns which stand free have places around them once again; each column is itself made in such a way that the places where it joins other entities, are once again entities: columns and feet.

So, the houses get their form, both as a group, and separately, as individuals, from the gradual accretion of a number of small separate acts.

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The bench is placed, to form a terrace; the extra bedroom helps to shield the garden from the neighborhood; the paving on the path is placed in such a way that it defines the entrance transition, and forms a contour edge to help prevent erosion from the rain; the extra growing house helps to form common land outside the house; the avenue of trees helps to form a park in the common land; the garages not only shield the cars, but also help to form gateways into the cluster. . . .

Every small act helps not only to increase the space, but also makes a contribution to the larger patterns which are needed there.

And finally, the common character of the cluster of houses grows, without control, simply from the accumulation of the individual acts—because each act of building is conceived as something which not only does good for itself, but also has the obligation to help generate the whole.

In chapter 19 I argued that an organic whole could only be created by a differentiating process.

I explained that only a process of differentiation, because it defines the parts within the whole, can generate a natural thing; because only this kind of process can shape parts individually, according to their position in the whole.

We see now that there is a second, complementary process which produces the same results, but works piecemeal, instead.

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When a place grows, and things are added to it, gradually, being shaped as they get added, to help form larger patterns, the place also remains whole at every stage—but in this case the geometric volume of the whole keeps changing, because there is an actual concrete aggregation of matter taking place.

This process, like the simple differentiating process, is able to make wholes in which the parts are shaped according to their place.

But this process is still more powerful: because it can make groups of buildings which are larger and more complex.

And it is more powerful, above all, because it leaves no mistakes: because the gaps get filled, the small things that are wrong are gradually corrected, and finally, the whole is so smooth and relaxed, that it will seem as though it had been there forever. It has no roughness about it, it simply lies there stretched out in time.

CHAPTER 25

THE SLOW EMERGENCE OF A TOWN

Finally, within the framework of a common language, millions of individual acts of building will together generate a town which is alive, and whole, and unpredictable, without control—this is the slow emergence of the quality without a name, as if from nothing.





Finally, then, we come to the town itself.

We have seen how a few dozen acts of building, done within a common pattern language can gradually generate a whole; and that the larger patterns which are needed to define that whole, can be created piecemeal, by the slow concrescence of the individual acts.

Now we shall see how this same process can be extended to a town.

For we now face at last, the deepest and the most far-reaching postulate of all—namely: the postulate that it is possible for all the large-scale order of a town to be created purely by means of incremental piecemeal acts.

The first thing to recognize is that for any system as vast as a town there is a fundamental problem.

When a single human mind or a group of minds together conceive a building, they naturally conceive it as a whole, and its parts then fall into place, both to support that whole, and also to be whole themselves.

But when a town grows, it does not grow in one human mind, nor in any coherent group of minds. A town is made from millions upon millions of individual acts of building. How can we be sure that the town will be whole, and not a rambling, incoherent chaos, if it is built from millions upon millions of individual acts?

The question is: can the structure emerge, simply from the spontaneous interaction of the parts?

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Can it be created by a free process, in which the people locally do what they want, and still create the whole successfully?

Or must it be planned, by a hidden hand, according to a blueprint or a master plan?

Must there be some kind of control, some kind of totalitarian order, imposed from above, which restricts the freedom of the individual acts, and forces them into a large-scale order?

To put this question in perspective I should like to compare it to a question that arose in the early years of biology: "How does an organism get formed?"

Consider your hand, for example. Hold it out in front of you. Do you realize that this complex shape, this intricate structure of bones, and muscle, fingers, thumb, fingernails, joints, wrinkles, subtle curves, has come into being entirely without the background of a blueprint or a master plan?

Do you realize, fully, that the cooperation of the cells has formed this hand, guided only by certain rules which direct the growth of the individual cells, according to their interaction with each other?

Or consider another example. As I look out of my window, I see a few square yards of flowering bushes there, with grass below them, a tree or two sticking out, and a few other plants, sitting among them.

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If I look at these bushes, down to the details of their individual leaves, the grains of soil below them, the twigs, the petals of the flowers, the insects sitting on the leaves, the gaps between the leaves, where lower leaves are open to the sky, do I have to believe that there is a hidden designer who has created this?

At first biologists thought that there must be a hidden designer.

They believed that this miracle could not be happening without something to guide it, a spiritual master plan, which told the cells just where to place themselves. Up until the seventeenth century, some biologists even believed that every cell in a man contained a little man, who was a model of the larger man.

Yet now it has become clear that the organism is formed purely by the interaction of its cells, guided by the genetic code.

Recently, our experiments have begun to make it clear that this seeming miracle is not a miracle of guidance from above, but instead a miracle of subtle organized cooperation between the parts: that the growing cells alone, communicating with each other, and guided only by the instructions programmed into them by the genetic code, act correctly, with respect to one another, in such a way that they create an entirely individual whole, not predictable in detail, but recognizable in species.

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And this is true for a town too.

At one time people believed that a town had to be planned by a planner who made a plan or blueprint. It was said that if the order of the town is not created from above, there will just not *be* an order in the town. And so, even in spite of the most obvious evidence of all the beautiful towns and villages built in traditional societies without master plans, this belief has taken hold, and people have allowed themselves to give up their freedom.

As in biology, though, it is becoming clear now that the structure of a town can be woven much more deeply, more intricately, from the interaction of its individual acts of building within a common language, than it can from a blueprint or a master plan—and that indeed, just like your hand, or like the bush outside my window, it is best generated by the interaction of the rules which govern the construction of the parts.

Let us see in detail, how a process of interacting rules can work to generate a town.

The essential fact, which makes it possible, is that the patterns are not generated, suddenly, completely, but that instead each larger pattern comes into being as the end product of a long sequence of tiny acts—and that these tiny acts themselves have the power to create the pattern, if they are repeated often enough.

This is commonplace, in the growth of an organism,

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where all the larger patterns are generated, merely as the end products of tiny, daily transformations.

At any given moment, in a growing organism, there is no sense of the “end” or of the final “goal” of growth. There is, instead, a process of transformation, which is able to take the present state of the organism, and move it slightly, in the next minute of growth—in such a way that when the same process is then repeated in the minute after that, and in the minute after that, slowly, inexorably, the necessary patterns come into being—not according to some plan, but as the product of a sequence of transforming steps.

In detail, this happens through the action of certain chemical fields, created by the hormones. These fields encourage and inhibit growth, at different parts of space—and this differential growth process then slowly generates the growing whole. According to the state of these fields at any one moment, the growth process creates a certain minute growth, which transforms the existing structure, just slightly, according to a certain rule.

As the growth occurs, the chemical fields change, so that the “same” transformation, guided by the “same” rule, has a slightly different effect each time that it occurs. Thus, the repeated application of the transformation, guided by the changing concentrations in the chemical fields which tell the organism how close it is to reaching equilibrium, guide it towards the finished pattern. But the finished pattern is merely the end product of the succession of tiny transformations.

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And just this too, must also happen in a town.

In this case, the “chemical fields” are replaced merely by people’s consciousness of the larger scale patterns, which provide the rules of growth. If people have agreements about these larger scale patterns, then they can use their knowledge of the patterns, and the degree to which these patterns have been attained, or not, to guide the growth and the assembly of the smaller patterns.

Slowly, under the impact of this guidance, the sequence of small-scale transformations will, of its own accord, create the larger patterns, piece by piece: without any individual person necessarily knowing just exactly how or where these larger patterns will be in the finished town.

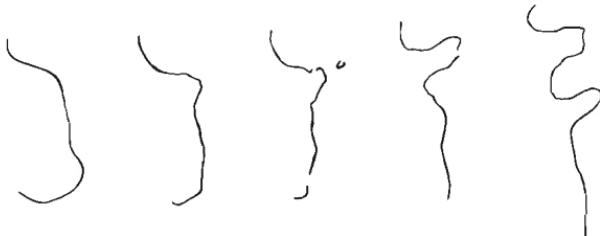
Here, for example, is the way a process of this kind can generate a very large-scale pattern like CITY COUNTRY FINGERS.

At any given moment, the actual boundary between the town and the country is a rough uneven curve. Suppose that the town gives local communities incentives which encourage growth just where these curves bulge outwards; which inhibit growth on the outside of the places where the curve bulges inwards; and which even encourage destruction of buildings, and the re-creation of open space, on the inside of the curve at those points where the curve bulges inwards.

Under the impact of these incentives, the bulges will grow outwards gradually, to form city fingers; the “non-

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"bulges" will stay where they are, or even grow backwards into the town, maintaining and creating country fingers.



Of course, in any one month, the actual progress is minute. But that does not matter. Under the impact of this growth process, slowly but inexorably the pattern **CITY COUNTRY FINGERS** will come into being.

On a slightly smaller scale, the same can happen in a community to generate a PROMENADE.

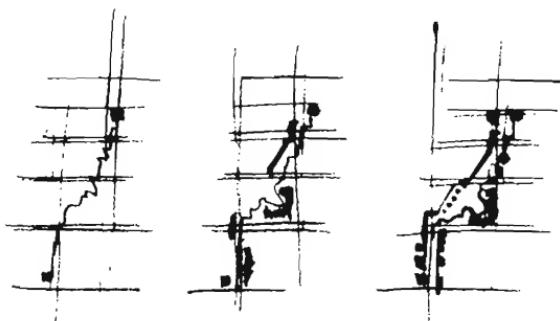
Suppose, for instance, that there is the beginning of a **PEDESTRIAN STREET**, and **PROMENADE**, between some corner where there is an ice cream store, and another corner where people gather in the evenings.

The community now makes it clear to all the individual neighborhoods around the line between these points, that they want to encourage the removal of car traffic from the paths along this line, that they hope to see new community activity locate along the emerging promenade, and so on.

Each neighborhood, then, formulates the way in which it can best help the slow creation of this **PROMENADE**—

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and does so because it will gain from the incentives which the larger community has in its power. Suppose, for instance, that one neighborhood sees that it can create a **GATEWAY**, with a little **SPORTS ACTIVITY**, in a place where the **PROMENADE** might run. In order to create the promenade, they will then build a path, which might run in that part of the community, past the gateway which leads into the neighborhood, and past the table tennis and local sports. Gradually the promenade emerges from the piece-meal efforts of the different neighborhoods.



And the same kind of process can also generate the patterns in a local neighborhood.

Consider two patterns which are the responsibility of the local neighborhood: **MAIN GATEWAYS** and **NETWORK OF PATHS AND CARS**.

The neighborhood creates incentives, which encourage the house clusters, and work communities, and individual house owners, to generate these patterns slowly, piece by piece.

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One year the people in one cluster take down a back fence, and so a path begins from one street, in between two clusters, and towards another street. The next year, a different cluster connects its common area with that same path, acting again under the incentive which the local neighborhood provides, knowing that it is in their interest to help to generate this larger pattern which the neighborhood needs.



Another year, the people who live near the boundary of the neighborhood decide to bridge the street with a pair of small buildings which help to form a gate. Of course, they build this gate in such a way that it connects with the emerging **NETWORK OF PATHS AND CARS**. This act does not, in itself, form a complete **MAIN GATEWAY**. But the narrowing of the street, where the two buildings have been built, is clearly the precursor of a gate: other smaller acts will follow it, to make the gateway complete. But meanwhile, the neighborhood has allowed these two buildings to encroach on the street, because they recognize that the narrowing which this creates will gradually move that corner of the neighborhood towards a state where it does

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have the MAIN GATEWAY which the whole neighborhood needs in that quarter.

Each of these processes requires a large group, and a group of smaller groups.

In this respect they are just like the example of the houses and the cluster of houses, in chapter 24, but extended to a larger scale. There the houses act individually, to generate the larger patterns which the cluster needs. And just so here, but at a larger scale. The clusters act together, to generate the patterns which the neighborhood needs. The neighborhoods act together to create the patterns, which the community needs. And the communities act together to generate the patterns which the whole town needs.

In order for these processes to cover the whole structure of a town, it is therefore necessary that the town be made up from a hierarchy of groups and land, each one responsible for its own patterns.

At the lowest level, each individual person owns his own private space: and is responsible for helping to create the patterns there, according to his needs.

At the second level, the family has its own land, and its own common space: and the workgroup has the same. The families, and workgroups are responsible for all the larger patterns which are needed for the common space.

At the third level, each cluster of families or work-groups is a well defined legal entity—a legally defined

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group—which owns its own land (that land, which the families all use together, but which is not private to any one of them)—and is responsible for all the patterns which are needed there.

At the fourth level, the neighborhood, made up of clusters, is again a well-defined, legally constituted human group, which once again owns that land which is common to its members—local roads, local parks, local kindergartens—but does not own the smaller common lands the clusters own. The neighborhood, as a group, is responsible for the patterns in its common land.

At the next level again, there are communities, made up of neighborhoods—again well defined, and legally constituted—again with their own common land, including larger roads, large public buildings, again responsible for all those patterns which are needed to serve the whole community.

Finally, at the level of the town, there is again a legal entity, again owning common land—not owning, as a town does now, *all* the streets, *all* the parks, but owning only those which are specifically used by everyone—the very largest ones, and responsible for just those largest patterns which are needed in this largest common land.

And, in order for the larger patterns to come into being, piecemeal, from the aggregation of the smaller acts, it is then necessary that each group is made responsible for helping the next larger group, create the larger patterns which the larger group requires.

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Thus, when a person forms his room he is given specific incentives to help to form the larger patterns of the household, or workshop in which his room is placed: so COMMON AREAS AT THE HEART, A ROOM OF ONE'S OWN, INTIMACY GRADIENT, BUILDING EDGE, POSITIVE OUTDOOR SPACE, WINGS OF LIGHT, will gradually emerge.

And when members of a family build or modify their house, they are given specific incentives by the cluster, which makes them responsible for improving the environment around them—above them, below them, and to the side: so BUILDING COMPLEX, CIRCULATION REALMS, HALF-HIDDEN GARDEN, SMALL PARKING LOTS, SHIELDED PARKING, FAMILY OF ENTRANCES, will gradually emerge under the responsibility of the cluster.

When each cluster modifies its overall form, or builds on, it is responsible to the neighborhood for bringing larger neighborhood patterns into being: NEIGHBORHOOD BOUNDARY, MAIN GATEWAY, GREEN STREET, POOLS AND STREAMS, CHILDREN'S HOME, LOOPED LOCAL ROAD, HOME WORKSHOPS, SCATTERED WORK, QUIET BACKS. The neighborhood can give money, or other incentives, to encourage those small acts which help to bring these larger patterns into being.

The larger community can in the same way give both money and permission to those neighborhoods which help bring its even larger patterns into being: ACCESSIBLE GREEN, PARALLEL ROADS, PROMENADE, SHOPPING STREET, MOSAIC OF SUBCULTURES, SUBCULTURE BOUNDARY, SCATTERED WORK, SACRED SITES, HOLY GROUND, HEALTH CENTERS. Again, these larger patterns will

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emerge according to the voluntary cooperation of the neighborhoods. ECCENTRIC NUCLEUS, DENSITY RINGS . . .

Even at the very largest levels, the region and the city can provide incentives which will encourage these communities to modify their own internal structure in a way which helps the largest patterns to appear: NETWORK OF TRANSPORTATION, RING ROADS, CITY COUNTRY FINGERS, LOCAL TRANSPORT AREAS, AGRICULTURAL VALLEYS, ACCESS TO WATER, SACRED SITES . . .

Under these circumstances, it is certain that every pattern will appear at the level where it is needed.

The small patterns produced directly by the individuals, and repeated over and again. The large patterns generated indirectly, by the gradual incremental repetition of the smaller patterns.

But it is never certain just exactly where a given pattern will appear.

Nor is it certain just what form any one pattern will take, in any one particular place.

We know, ahead of time, what general form it has.

But we do not know its exact form, its exact dimensions, its detailed character, until it has grown to maturity —because it forms itself, in the process of growth, and it is only growth itself, in response to the details of its surroundings, which can shape it correctly.

In this sense it is like the natural order of an oak tree.

THE SLOW EMERGENCE OF A TOWN

The final shape of any one particular oak tree is unpredictable.

When the oak tree grows, there is no blueprint, no master plan, which tells the twigs and branches where to go.

We know in general that it will have the overall form of an oak, because its growth is guided by the pattern language for an oak tree (its genetic code). But it is unpredictable, in detail, because each small step is shaped by the interaction of this language with external forces and conditions—rain, wind, sunlight, the composition of the earth, position of other trees and bushes, the thickness of the leaves on its own branches.

And a town which is whole, like an oak tree, must be unpredictable also.

The fine details cannot be known ahead of time. We may know, from the pattern language which is shared, what kind of town it will be. But it is impossible to predict its detailed plan: and it is not possible to make it grow according to some plan. It must be unpredictable, so that the individual acts of building can be free to fit themselves to all the local forces which they meet.

The people of a town may know that there is going to be a main pedestrian street, because there is a pattern which tells them so. But, they cannot know just where this main pedestrian street will be, until it is already there. The street will be built up from smaller acts, wherever

THE WAY

the opportunity arises. When it is finally made, its form is partly given by the history of happy accidents which let the people build it along with their own more private acts. There is no way of knowing, ahead of time, just where these accidents will fall.

This process, exactly like the emergence of any other form of life, alone produces a living order.

It is a process by which the small acts of individuals, almost random, are sieved and harnessed, so that what they create is orderly, even though the product of confusion.

It creates order, not by forcing it, nor by imposing it upon the world (through plans or drawings or components) : but because it is a process which draws order from its surroundings—it allows it to come together.

But of course, by this means far more order can come into being, than could possibly come into being through an invented act.

It is vastly more complex than any other kind of order. It cannot be created by decision. It cannot be designed. It cannot be predicted in a plan. It is the living testament of hundreds and thousands of people, making their own lives and all their inner forces manifest.

And, finally, the whole emerges.