

1

Independent Regions



Metropolitan regions will not come to balance until each one is small and autonomous enough to be an independent sphere of culture. In the best of medieval times, the cities performed this function. They provided permanent and intense spheres of cultural influence, variety, and economic exchange.



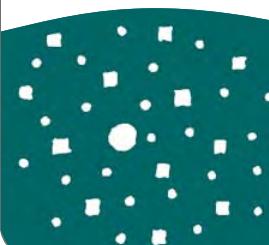
related:
The Distribution Of Towns (2),
Mosaic Of Subcultures (8).

2

The Distribution Of Towns



If the population of a region is weighted too far toward small villages, modern civilization can never emerge; but if the population is weighted too far toward big cities, the earth will go to ruin because the population isn't where it needs to be, to take care of it.



related:
Valleys (4) Country Towns (6)
City Country Fingers (3)

3

City Country Fingers



Continuous sprawling urbanization destroys life, and makes cities unbearable. But the sheer size of cities is also valuable and potent. People feel comfortable when they have access to the countryside, experience of open fields, and agriculture; access to wild plants and birds and animals.



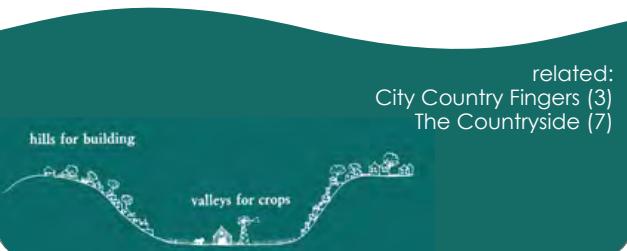
related:
Agricultural Valleys (4)
Mosaic Of Subcultures (8)
Web Of Public Transportation (6)
Ring Roads (7)

4

Agricultural Valleys



The land which is best for agriculture happens to be best for building too. But it is limited and once destroyed, it cannot be regained for centuries. Preserve all agricultural valleys as farmland and protect this land from any development which would destroy or lock up the unique fertility of the soil.



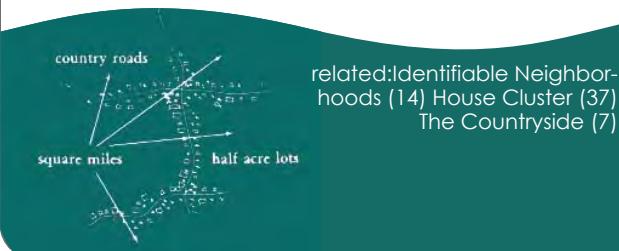
related:
City Country Fingers (3)
The Countryside (7)

5

Lace Of Country Streets



The suburb is an obsolete and contradictory form of human settlement. In the zone where city and country meet, place country roads at least a mile apart, so that they enclose squares of countryside and farmland at least one square mile in area.



related:Identifiable Neighborhoods (14) House Cluster (37)
The Countryside (7)

6

Country Towns



The big city is a magnet. It is terribly hard for small towns to stay alive and healthy in the face of central urban growth. Preserve country towns where they exist; and encourage the growth of new self-contained towns, with populations between 500 and 10,000, entirely surrounded by open countryside and at least 10 miles from neighboring towns. Make it the region's collective concern to give each town the wherewithal it needs to build a base of local industry, so that these towns are not dormitories for people who work in other places, but real towns - able to sustain the whole of life.



related:

7 The Countryside



I conceive that land belongs for use to a vast family of which many are dead, few are living, and countless members are still unborn. - a Nigerian tribesman. Define all farms as parks, where the public has a right to be; and make all regional parks into working farms. Create stewardships among groups of people, families and cooperatives, with each stewardship responsible for one part of the countryside.

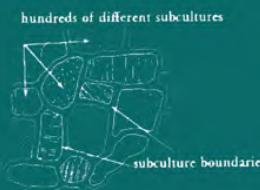


related:

8 Mosaic Of Subcultures



The homogeneous and undifferentiated character of modern cities kills all variety of life styles and arrests the growth of individual character. Do everything possible to enrich the cultures and subcultures of the city, by breaking the city, as far as possible, into a vast mosaic of small and different subcultures, each with its own spatial territory, and each with the power to create its own distinct life style.

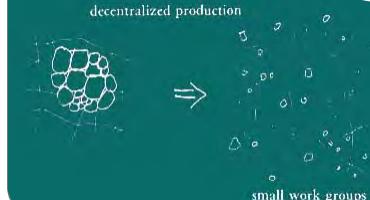


related:

9 Scattered Work



...and so intensifying the emergence of highly differentiated subcultures, each with its individual character. The artificial separation of houses and work creates intolerable rifts in people's inner lives. Use zoning laws, neighborhood planning, tax incentives, and any other means available to scatter workplaces throughout the city. Prohibit large concentrations of work, without family life around them. Prohibit large concentrations of family life, without workplaces around them.



related:

10

Magic Of The City



There are few people who do not enjoy the magic of a great city. But urban sprawl takes it away from everyone except the few who are lucky enough, or rich enough, to live close to the largest centers. Put the magic of the city within reach of everyone in a metropolitan area. Do this by means of collective regional policies which restrict the growth of downtown areas so strongly...



related:



11

Local Transport Areas



Cars give people wonderful freedom and increase their opportunities. But they also destroy the environment, to an extent so drastic that they kill all social life. Break the urban area down into local transport areas, each one between 1 and 2 miles across, surrounded by a ring road. Within the local transport area, build minor local roads and paths for internal movements on foot, by bike, on horseback, and in local vehicles.

related:



12

Community Of 7000



Individuals have no effective voice in any community of more than 5000-10,000 persons. Decentralize city governments in a way that gives local control to communities of 5,000 to 10,000 persons. As nearly as possible, use natural geographic and historical boundaries to mark these communities. Give each community the power to initiate, decide, and execute the affairs that concern it closely: land use, housing, maintenance, streets, parks, police, schooling, welfare, neighborhood services.

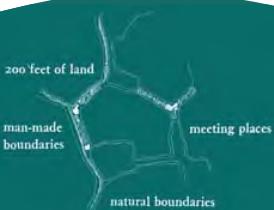
related:

13

Subculture Boundary



The mosaic of subcultures requires that hundreds of different cultures live, in their own way, at full intensity, next door to one another. But subcultures have their own ecology. They can only live at full intensity, unhampered by their neighbors, if they are physically separated by physical boundaries. Separate neighboring subcultures with a swath of land at least 200 feet wide. Let this boundary be natural wilderness, farmland, water - or man-made – railroads...



related:

Identifiable Neighborhood



People need an identifiable spatial unit to belong to. Help people to define the neighborhoods they live in, not more than 300 yards across, with no more than 400 or 500 inhabitants. In existing cities, encourage local groups to organize themselves to form such neighborhoods. Give the neighborhoods some degree of autonomy as far as taxes and land controls are concerned. Keep major roads outside these neighborhoods.



14

Neighborhood Boundary



The strength of the boundary is essential to a neighborhood. If the boundary is too weak the neighborhood will not be able to maintain its own identifiable character. Encourage the formation of a boundary around each neighborhood, to separate it from the next door neighborhoods. Form this boundary by closing down streets and limiting access to the neighborhood - cut the normal number of streets at least in half.



15

related:

16

Web Of Public Transportation



To connect the transport areas, and to maintain the flow of people and goods along the fingers of the cities - the entire web of airplanes, helicopters, hovercraft, trains, boats, ferries, buses, taxis, mini-trains, carts, ski-lifts, moving sidewalks - can only work if all the parts are well connected. But they usually aren't, because the different agencies in charge of various forms of public transportation have no incentives to connect to one another.

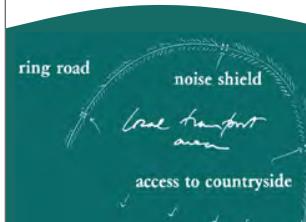


related:

Ring Roads



It is not possible to avoid the need for high speed roads in modern society; but it is essential to place them and build them in such a way that they do not destroy communities or countryside. Place high speed roads (freeways and other major arteries) so that: 1. At least one high speed road lies tangent to each local transport area...

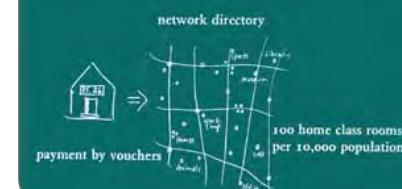


17

Network Of Learning



In a society which emphasizes teaching, children and students - and adults - become passive and unable to think or act for themselves. Creative, active individuals can only grow up in a society which emphasizes learning instead of teaching. Instead of the lock-step of compulsory schooling in a fixed place, work in piecemeal ways to decentralize the process of learning and enrich it through contact with many places and people all over the city.



related:

19

Web Of Shopping



Shops rarely place themselves in those positions which best serve the people's needs, and also guarantee their own stability. When you locate any individual shop, follow a three-step procedure: 1. Identify all other shops which offer the service you are interested in; locate them on the map. 2. Identify and map the location of potential consumers. Wherever possible, indicate the density or total number of potential consumers in any given area.



shops of same type

related:



bus stops every 600 feet

20

Mini-Buses



Public transportation must be able to take people from any point to any other point within the metropolitan area. Establish a system of small taxi-like buses, carrying up to six people each, radio-controlled, on call by telephone, able to provide point-to-point service according to the passengers' needs, and supplemented by a computer system which guarantees minimum detours, and minimum waiting times. Make bus stops for the mini-buses every 600 feet in each direction.

related:



However, throughout the city, even at its densest points, there are strong human reasons to subject all buildings to height restrictions. There is abundant evidence to show that high buildings make people crazy. In any urban area, no matter how dense, keep the majority of buildings four stories high or less. It is possible that certain buildings should exceed this limit, but they should never be buildings for human habitation.

related:



four storys

22

Nine Per Cent Parking



Very simply when the area devoted to parking is too great, it destroys the land. Do not allow more than 9 per cent of the land in any given area to be used for parking. In order to prevent the "bunching" of parking in huge neglected areas, it is necessary for a town or a community to subdivide its land into "parking zones" no larger than 10 acres each and to apply the same rule in each zone.



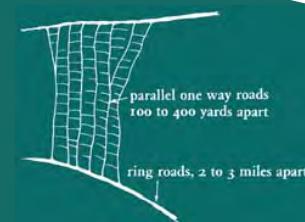
related:

23

Parallel Roads



The net-like pattern of streets is obsolete. Congestion is choking cities. Cars can average 60 miles per hour on freeways, but trips across town have an average speed of only 10 to 15 miles per hour. Therefore: Within a local transport area build no intersecting major roads at all; instead, build a system of parallel and alternating one-way roads to carry traffic to the Ring Roads (17).



related:

24

Sacred Sites



People cannot maintain their spiritual roots and their connections to the past if the physical world they live in does not also sustain these roots. Whether the sacred sites are large or small, whether they are at the center of the towns, in neighborhoods, or in the deepest countryside, establish ordinances which will protect them absolutely so that our roots in the visible surroundings cannot be violated.



related:

25

Access To Water



People have a fundamental yearning for great bodies of water. But the very movement of the people toward the water can also destroy the water. When natural bodies of water occur near human settlements, treat them with great respect. Always preserve a belt of common land, immediately beside the water. And allow dense settlements to come right down to the water only at infrequent intervals along the water's edge.

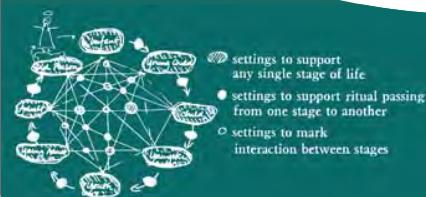


related:

Life Cycle



All the world's a stage, And all the men and women merely players: They have their exits and their entrances; And one man in his time plays many parts, His acts being seven ages. As, first the infant, Mewling and puking in the nurse's arms. And then the whining schoolboy, with his satchel And shining morning face, creeping like snail Unwillingly to school. And then the lover, Sighing like furnace...



26

Men And Women



The world of a town in the 1970's is split along sexual lines. Suburbs are for women, workplaces for men; kindergartens are for women, professional schools for men; supermarkets are for women, hardware stores for men. Make certain that each piece of the environment - each building, open space, neighborhood, and work community - is made with a blend of both men's and women's instincts.



related:

28

Eccentric Nucleus



The random character of local densities confuses the identity of our communities, and also creates a chaos in the pattern of land use. Encourage growth and the accumulation of density to form a clear configuration of peaks and valleys according to the following rules: 1. Consider the town as a collection of communities of 7000. These communities will be between 1/4 mile across and 2 miles across, according to their overall density.



related:

29

Density Rings



People want to be close to shops and services, for excitement and convenience. And they want to be away from services, for quiet and green. The exact balance of these two desires varies from person to person, but in the aggregate it is the balance of these two desires which determines the gradient of housing densities in a neighborhood.



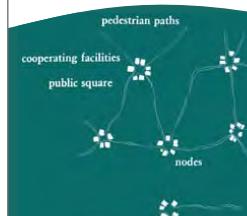
related:

30

Activity Nodes



Community facilities scattered individually through the city do nothing for the life of the city. Create nodes of activity throughout the community, spread about 300 yards apart. First identify those existing spots in the community where action seems to concentrate itself. Then modify the layout of the paths in the community to bring as many of them through these spots as possible. This makes each spot function as a "node" in the path network.



related:

31

Promenade



Each subculture needs a center for its public life: a place where you can go to see people, and to be seen. Encourage the gradual formation of a promenade at the heart of every community, linking the main activity nodes, and placed centrally, so that each point in the community is within 10 minutes' walk of it. Put main points of attraction at the two ends, to keep a constant movement up and down.



related:

32

Shopping Street



Shopping centers depend on access: they need locations near major traffic arteries. However, the shoppers themselves don't benefit from traffic: they need quiet, comfort, and convenience, and access from the pedestrian paths in the surrounding area. Encourage local shopping centers to grow in the form of short pedestrian streets, at right angles to major roads and opening off these roads with parking behind the shops, so that the cars can pull directly off the road.



33

Night Life



Most of the city's activities close down at night; those which stay open won't do much for the night life of the city unless they are together. Knit together shops, amusements, and services which are open at night, along with hotels, bars, and all-night diners to form centers of night life: well-lit, safe, and lively places that increase the intensity of pedestrian activity at night.



related:

34

Interchange



Interchanges play a central role in public transportation. Unless the interchanges are working properly, the public transportation system will not be able to sustain itself. At every interchange in the web of transportation follow these principles: 1. Surround the interchange with workplaces and housing types which specially need public transportation. 2. Keep the interior of the interchange continuous with the exterior pedestrian network, and maintain this continuity.

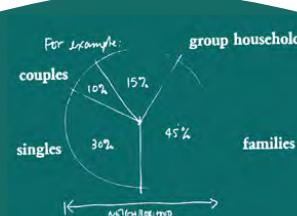


related:

Household Mix



The question is, what kind of mix should a well-balanced neighborhood contain? No one stage in the life cycle is self-sufficient. Encourage growth toward a mix of household types in every neighborhood, and every cluster, so that one-person households, couples, families with children, and group households are side by side.

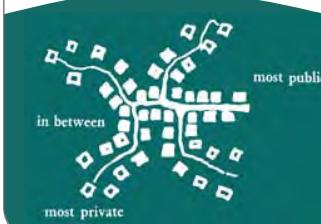


35

Degrees Of Publicness



People are different, and the way they want to place their houses in a neighborhood is one of the most basic kinds of difference. Make a clear distinction between three kinds of homes - those on quiet backwaters, those on busy streets, and those that are more or less in between. Make sure that those on quiet backwaters are on twisting paths, and that these houses are themselves physically secluded.



related:

House Cluster



People will not feel comfortable in their houses unless a group of houses forms a cluster, with the public land between them jointly owned by all the householders. Arrange houses to form very rough, but identifiable clusters of 8 to 12 households around some common land and paths. Arrange the clusters so that anyone can walk through them, without feeling like a trespasser.



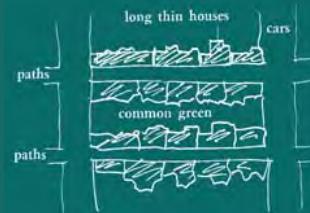
related:

37

Row Houses



... to generate the denser parts of Density Rings (29) and Degrees Of Publicness (36), it is necessary to build row houses instead. At densities of 15 to 30 houses per acre, row houses are essential. But typical row houses are dark inside, and stamped from an identical mould. For row houses, place houses along pedestrian paths that run at right angles to local roads and parking lots.



related:

38

Housing Hill



Every town has places in it which are so central and desirable that at least 30-50 households per acre will be living there. But the apartment houses which reach this density are almost all impersonal. To build more than 30 dwellings per net acre, or to build housing three or four stories high, build a hill of houses. Build them to form stepped terraces, sloping toward the south.



related:

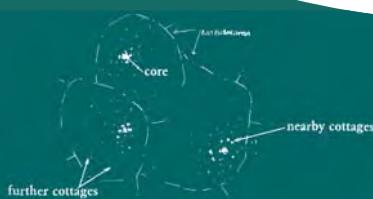
39

40

Old People Everywhere



Old people need old people, but they also need the young, and young people need contact with the old. Create dwellings for some 50 old people in every neighborhood. Place these dwellings in three rings . . . 1. A central core with cooking and nursing provided. 2. Cottages near the core. 3. Cottages further out from the core, mixed among the other houses of the neighborhood, but never more than 200 yards from the core.

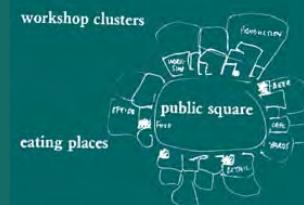


related:

Work Community



If you spend eight hours of your day at work, and eight hours at home, there is no reason why your workplace should be any less of a community than your home. Build or encourage the formation of work communities - each one a collection of smaller clusters of workplaces which have their own courtyards, gathered round a larger common square or common courtyard which contains shops and lunch counters.

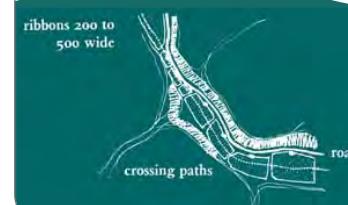


41

Industrial Ribbon



Exaggerated zoning laws separate industry from the rest of urban life completely, and contribute to the plastic unreality of sheltered residential neighborhoods. Place industry in ribbons, between 200 and 500 feet wide, which form the boundaries between communities. Break these ribbons into long blocks, and treat the edge of every ribbon as a place where people from nearby communities can benefit from the offshoots of the industrial activity.



42

related:

43

University As A Marketplace



Concentrated, cloistered universities, with closed admission policies and rigid procedures which dictate who may teach a course, kill opportunities for learning. Establish the university as a marketplace of higher education. As a social conception this means that the university is open to people of all ages, on a full-time, part-time, or course by course basis. Anyone can offer a class. Anyone can take a class.



44

Local Town Hall



Local government of communities and local control by the inhabitants, will only happen if each community has its own physical town hall which forms the nucleus of its political activity. To make the political control of local functions real, establish a small town hall for each community of 7000, and even for each neighborhood; locate it near the busiest intersection in the community.

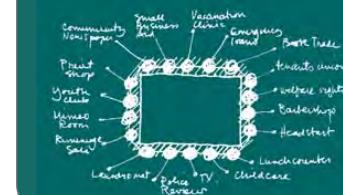


45

Necklace Of Community Projects



The local town hall will not be an honest part of the community which lives around it, unless it is itself surrounded by all kinds of small community activities and projects, generated by the people for themselves. Allow the growth of shop-size spaces around the local town hall, and any other appropriate community building. Front these shops on a busy path, and lease them for a minimum rent to ad hoc community groups.



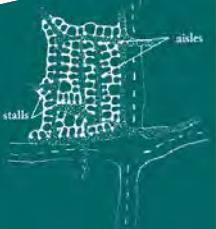
related:

46

Market Of Many Shops



It is natural and convenient to want a market where all the different foods and household goods you need can be bought under a single roof. But when the market has a single management, like a supermarket, the foods are bland, and there is no joy in going there. Instead of modern supermarkets, establish frequent marketplaces, each one made up of many smaller shops which are autonomous and specialized.



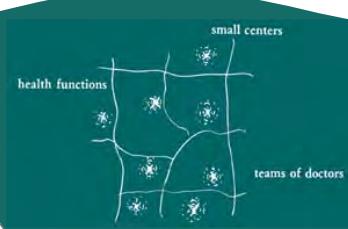
related:

47

Health Center



More than 90 per cent of the people walking about in an ordinary neighborhood are unhealthy, judged by simple biological criteria. This ill health cannot be cured by hospitals or medicine. Gradually develop a network of small health centers, perhaps one per community of 7000, across the city; each equipped to treat everyday disease both mental and physical, in children and adults.



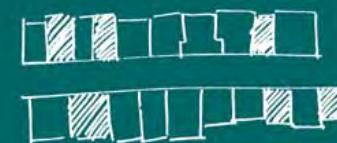
related:

48

Housing In Between



Wherever there is a sharp separation between residential and nonresidential parts of town, the nonresidential areas will quickly turn to slums. Build houses into the fabric of shops, small industry, schools, public services, universities all those parts of cities which draw people in during the day, but which tend to be "nonresidential." The houses may be in rows or "hills" with shops beneath, or they may be free-standing.



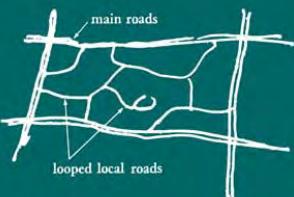
related:

49

Looped Local Roads



Nobody wants fast through traffic going by their homes. Lay out local roads so that they form loops. A loop is defined as any stretch of road which makes it impossible for cars that don't have destinations on it to use it as a shortcut. Do not allow any one loop to serve more than 50 cars, and keep the road really narrow - 17 to 20 feet is quite enough.



related:

50

T Junctions



This pattern gives the nature of the intersections. It will also greatly influence the layout of the local roads. Traffic accidents are far more frequent where two roads cross than at T junctions. Therefore: Lay out the road system so that any two roads which meet at grade, meet in three-way T junctions as near 90 degrees as possible. Avoid four-way intersections and crossing movements.

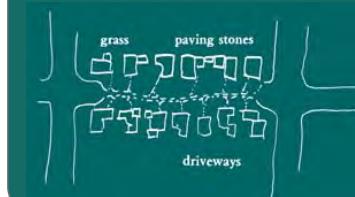


related:

Green Streets



There is too much hot hard asphalt in the world. A local road, which only gives access to buildings, needs a few stones for the wheels of the cars; nothing more. Most of it can still be green. On local roads, closed to through traffic, plant grass all over the road and set occasional paving stones into the grass to form a surface for the wheels of those cars that need access to the street.



related:

52

Network Of Paths And Cars



Cars are dangerous to pedestrians; yet activities occur just where cars and pedestrians meet. Except where traffic densities are very high or very low, lay out pedestrian paths at right angles to roads, not along them, so that the paths gradually begin to form a second network, distinct from the road system, and orthogonal to it. This can be done quite gradually - even if you put in one path at a time.



related:

53

Main Gateways



Any part of a town - large or small - which is to be identified by its inhabitants as a precinct of some kind, will be reinforced, helped in its distinctness, marked, and made more vivid, if the paths which enter it are marked by gateways where they cross the boundary. Mark every boundary in the city which has important human meaning - the boundary of a building cluster, a neighborhood, a precinct.



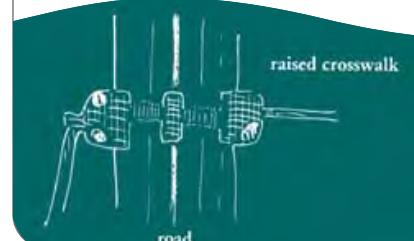
related:

54

Road Crossing



Where paths cross roads, the cars have power to frighten and subdue the people walking, even when the people walking have the legal right-of-way. At any point where a pedestrian path crosses a road that has enough traffic to create more than a two second delay to people crossing, make a "knuckle" at the crossing: narrow the road to the width of the through lanes only.



related:

55

Raised Walk



Where fast moving cars and pedestrians meet in cities, the cars overwhelm the pedestrians. The car is king, and people are made to feel small. We conclude that any pedestrian path along a road carrying fast-moving cars should be about 18 inches above the road, with a low wall or railing, or balustrade along the edge, to mark the edge. Put the raised walk on only one side of the road.



related:

56

Bike Paths And Racks



Bikes are cheap, healthy, and good for the environment; but the environment is not designed for them. Bikes on roads are threatened by cars; bikes on paths threaten pedestrians. Build a system of paths designated as bike paths, with the following properties: the bike paths are marked clearly with a special, easily recognizable surface (for example, a red asphalt surface). As far as possible they run along local roads, or major pedestrian paths.



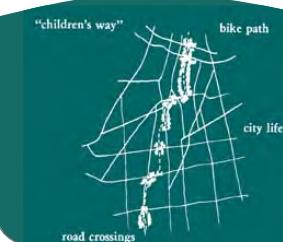
related:

57

Children In The City



If children are not able to explore the whole of the adult world round about them, they cannot become adults. But modern cities are so dangerous that children cannot be allowed to explore them freely. As part of the network of bike paths, develop one system of paths that is extra safe---entirely separate from automobiles, with lights and bridges at the crossings, with homes and shops along it, always with many eyes on the path.



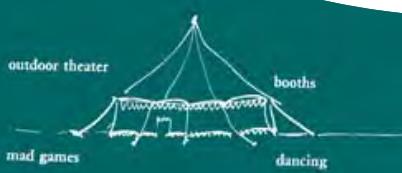
related:

58

Carnival



Just as an individual person dreams fantastic happenings to release the inner forces which cannot be encompassed by ordinary events, so too a city needs its dreams. Set aside some part of the town as a carnival - mad side-shows, tournaments, acts, displays, competitions, dancing, music, street theater, clowns, transvestites, freak events, which allow people to reveal their madness...



related:



59

Quiet Backs



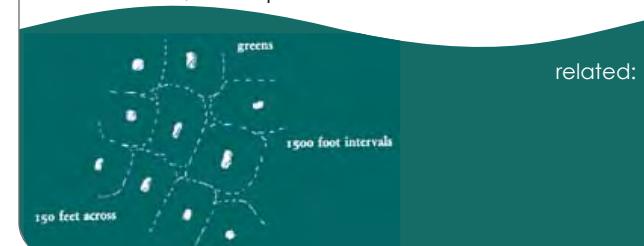
Any one who has to work in noise, in offices with people all around, needs to be able to pause and refresh himself with quiet in a more natural situation. Give the buildings in the busy parts of town a quiet "back" behind them and away from the noise. Build a walk along this quiet back, far enough from the building so that it gets full sunlight.

related:

Accessible Green



People need green open places to go to; when they are close they use them. But if the greens are more than three minutes away, the distance overwhelms the need. Build one open public green within three minutes' walk - about 750 feet - of every house and workplace. This means that the greens need to be uniformly scattered at 1500-foot intervals, throughout the city. Make the greens at least 150 feet across, and at least 60,000 square feet in area.



related:

61

Small Public Squares



A town needs public squares; they are the largest, most public rooms, that the town has. But when they are too large, they look and feel deserted. Make a public square much smaller than you would at first imagine; usually no more than 45 to 60 feet across, never more than 70 feet across. This applies only to its width in the short direction. In the long direction it can certainly be longer.



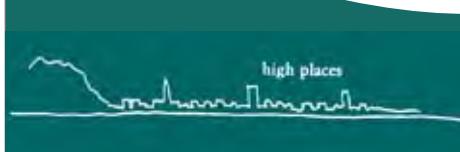
related:

62

High Places



The instinct to climb up to some high place, from which you can look down and survey your world, seems to be a fundamental human instinct. Build occasional high places as landmarks throughout the city. They can be a natural part of the topography, or towers, or part of the roofs of the highest local building but, in any case, they should include a physical climb.



63

Dancing In The Street



Why is it that people don't dance in the streets today? Along promenades, in squares and evening centers, make a slightly raised platform to form a bandstand, where street musicians and local bands can play. Cover it, and perhaps build in at ground level tiny stalls for refreshment. Surround the bandstand with paved surface for dancing -- no admission charge.



related:

64

Pools And Streams



We came from the water; our bodies are largely water; and water plays a fundamental role in our psychology. We need constant access to water, all around us; and we cannot have it without reverence for water in all its forms. But everywhere in cities water is out of reach. Preserve natural pools and streams and allow them to run through the city; make paths for people to walk along them and footbridges to cross them.



related:

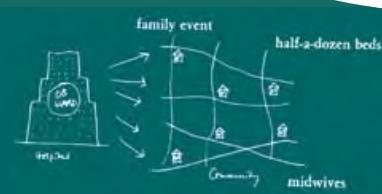
.

65

Birth Places



It seems unlikely that any process which treats childbirth as a sickness could possibly be a healthy part of a healthy society. Build local birth places where women go to have their children: places that are specially tailored to childbirth as a natural, eventful moment - where the entire family comes for prenatal care and education; where fathers and midwives help during the hours of labor and birth.



related:

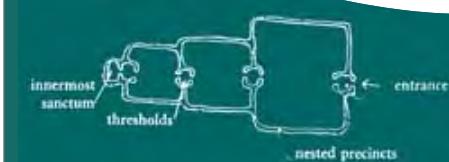
.

66

Holy Ground



What is a church or temple? It is a place of worship, spirit, contemplation, of course. But above all, from a human point of view, it is a gateway. A person comes into the world through the church. He leaves it through the church. And, at each of the important thresholds of his life, he once again steps through the church. In each community and neighborhood, identify some sacred site as consecrated ground.



related:

.

Common Land



Without common land no social system can survive. This common land, in fact, forms the very heart and soul of any cluster. Give over 25 per cent of the land in house clusters to common land which touches, or is very very near, the homes which share it. Basic: be wary of the automobile; on no account let it dominate this land.

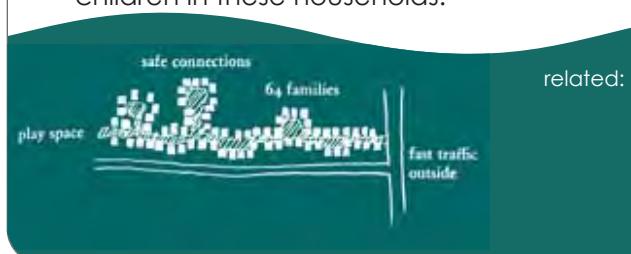


67

Connected Play



If children don't play enough with other children during the first five years of life, there is a great chance that they will have some kind of mental illness later in their lives. Lay out common land, paths, gardens, and bridges so that groups of at least 64 households are connected by a swath of land that does not cross traffic. Establish this land as the connected play space for the children in these households.

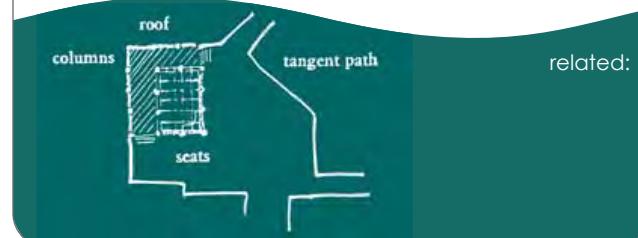


68

Public Outdoor Room



There are very few spots along the streets of modern towns and neighborhoods where people can hang out, comfortably, for hours at a time. In every neighborhood and work community, make a piece of the common land into an outdoor room - a partly enclosed place, with some roof, columns, without walls, perhaps with a trellis; place it beside an important path and within view of many homes and workshops.



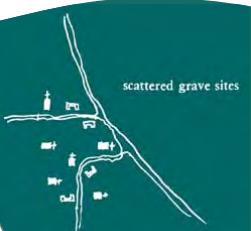
69

70

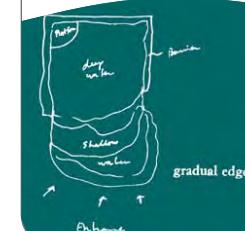
Grave Sites



No people who turn their backs on death can be alive. The presence of the dead among the living will be a daily fact in any society which encourages its people to live. Never build massive cemeteries. Instead, allocate pieces of land throughout the community as grave sites - corners of parks, sections of paths, gardens, beside gateways - where memorials to people who have died can be ritually placed with inscriptions and mementos.



related:



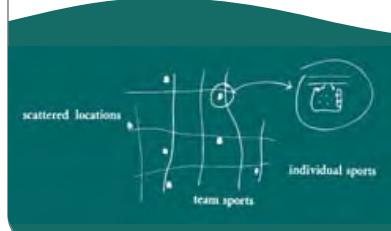
71

Still Water



To be in touch with water, we must above all be able to swim; and to swim daily, the pools and ponds and holes for swimming must be so widely scattered through the city, that each person can reach one within minutes. In every neighborhood, provide some still water - a pond, a pool - for swimming. Keep the pool open to the public at all times.

related:



72

Local Sports



This pattern defines the nature and distribution of this exercise. The human body does not wear out with use. On the contrary, it wears down when it is not used. Scatter places for team and individual sports through evry work community and neighborhood: tennis, squash, table tennis, swimming, billiards, basketball, dancing, gymnasium ... and make the action visible to passers-by, as an invitation to participate.

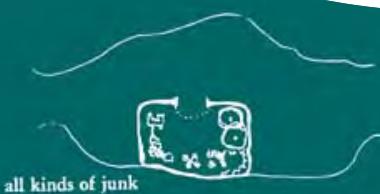
related:

73

Adventure Playground



A castle, made of cartons, rocks, and old branches, by a group of children for themselves, is worth a thousand perfectly detailed, exactly finished castles, made for them in a factory. Set up a playground for the children in each neighborhood. Not a highly finished playground, with asphalt and swings, but a place with raw materials of all kinds - nets, boxes, barrels, trees, ropes, simple tools, frames, grass, and water.



related:

Animals



Animals are as important a part of nature as the trees and grass and flowers. There is some evidence, in addition, which suggests that contact with animals may play a vital role in a child's emotional development. Make legal provisions which allow people to keep any animals on their private lots or in private stables. Create a piece of fenced and protected common land, where animals are free to graze in it.



74

The Family



The nuclear family is not by itself a viable social form. Set up processes which encourage groups of 8 to 12 people to come together and establish communal households. Morphologically, the important things are: 1. Private realms for the groups and individuals that make up the extended family: couple's realms, private rooms, sub-households for small families. 2. Common space for shared functions: cooking, working, gardening, child care.



75

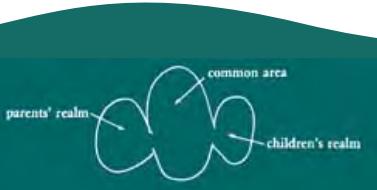
related:

76

House For A Small Family



In a house for a small family, it is the relationship between children and adults which is most critical. Give the house three distinct parts: a realm for parents, a realm for the children, and a common area. Conceive these three realms as roughly similar in size, with the commons the largest.

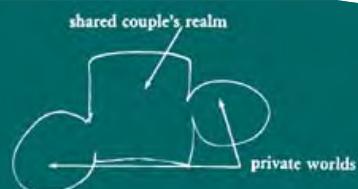


related:

House For A Couple



In a small household shared by two, the most important problem which arises is the possibility that each may have too little opportunity for solitude or privacy. Conceive a house for a couple as being made up of two kinds of places - a shared couple's realm and individual private worlds. Imagine the shared realm as half-public and half-intimate; and the private worlds as entirely individual and private.



related:

House For One Person



Once a household for one person is part of some larger group, the most critical problem which arises is the need for simplicity. Conceive a house for one person as a place of the utmost simplicity: essentially a one-room cottage or studio, with large and small alcoves around it. When it is most intense, the entire house may be no more than 300 to 400 square feet.



related:

78

79

Your Own Home



People cannot be genuinely comfortable and healthy in a house which is not theirs. All forms of rental - whether from private landlords or public housing agencies - work against the natural processes which allow people to form stable, self-healing communities. Do everything possible to make the traditional forms of rental impossible, indeed, illegal. Give every household its own home, with space enough for a garden.



related:

81

Self-Governing Workshops And Offices



No one enjoys his work if he is a cog in a machine. Encourage the formation of self-governing workshops and offices of 5 to 20 workers. Make each group autonomous - with respect to organization, style, relation to other groups, hiring and firing, work schedule. Where the work is complicated and requires larger organizations, several of these work groups can federate and cooperate to produce complex artifacts and services.



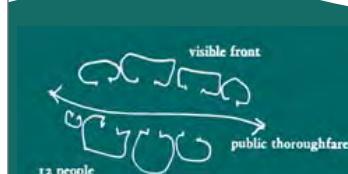
related:

81

Small Services Without Red Tape



Departments and public services don't work if they are too large. When they are large, their human qualities vanish; they become bureaucratic; red tape takes over. In any institution whose departments provide public service: 1. Make each service or department autonomous as far as possible. 2. Allow no one service more than 12 staff members total. 3. House each one in an identifiable piece of the building.



related:

82

Office Connections



If two parts of an office are too far apart, people will not move between them as often as they need to; and if they are more than one floor apart, there will be almost no communication between the two. To establish distances between departments, calculate the number of trips per day made between each two departments; get the "nuisance distance" from the graph above.



related:

83

Master And Apprentices



The fundamental learning situation is one in which a person learns by helping someone who really knows what he is doing. Arrange the work in every work-group, industry, and office, in such a way that work and learning go forward hand in hand. Treat every piece of work as an opportunity for learning. To this end, organize work around a tradition of masters and apprentices.



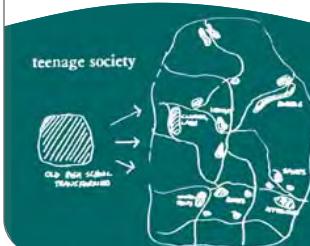
related:

84

Teenage Society



Teenage is the time of passage between childhood and adulthood. In traditional societies, this passage is accompanied by rites which suit the psychological demands of the transition. But in modern society the "high school" fails entirely to provide this passage. Replace the "high school" with an institution which is actually a model of adult society, in which the students take on most of the responsibility for learning and social life, with clearly defined roles and forms of discipline.

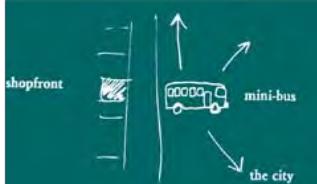


related:

Shopfront Schools



Around the age of 6 or 7, children develop a great need to learn by doing, to make their mark on a community outside the home. If the setting is right, these needs lead children directly to basic skills and habits of learning. Instead of building large public schools for children 7 to 12, set up tiny independent schools, one school at a time. Keep the school small.



related:

•

The task of looking - after little children is a much deeper and more fundamental social issue than the phrases "babysitting" and "child care" suggest. In every neighborhood, build a children's home - a second home for children - a large rambling house or workplace - a place where children can stay for an hour or two, or for a week. At least one of the people who run it must live on the premises.



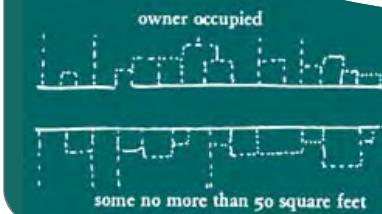
related:

•

Individually Owned Shops



When shops are too large, or controlled by absentee owners, they become plastic, bland, and abstract. Do what you can to encourage the development of individually owned shops. Approve applications for business licenses only if the business is owned by those people who actually work and manage the store. Approve new commercial building permits only if the proposed structure includes many very very small rental spaces.



related:

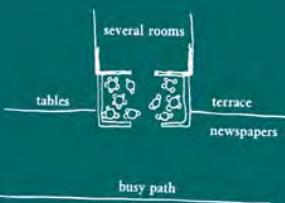
•

88

Street Cafe



The street cafe provides a unique setting, special to cities: a place where people can sit lazily, legitimately, be on view, and watch the world go by. Encourage local cafes to spring up in each neighborhood. Make them intimate places, with several rooms, open to a busy path, where people can sit with coffee or a drink and watch the world go by.



related:

Corner Grocery



It has lately been assumed that people no longer want to walk to local stores. This assumption is mistaken. Give every neighborhood at least one corner grocery, somewhere near its heart. Place these corner groceries every 200 to 800 yards, according to the density, so that each one serves about 1000 people. Place them on corners, where large numbers of people are going past. And combine them with houses.



89

Beer Hall



There is a special need for something larger and more raucous than a street cafe. Where can people sing, and drink, and shout and drink, and let go of their sorrows? Somewhere in the community at least one big place where a few hundred people can gather, with beer and wine, music, and perhaps a half-dozen activities, so that people are continuously criss-crossing from one to another.



related:

Traveler's Inn



A man who stays the night in a strange place is still a member of the human community, and still needs company. There is no reason why he should creep into a hole, and watch TV alone, the way he does in a roadside motel. Make the traveler's inn a place where travelers can take rooms for the night, but where - unlike most hotels and motels.



related:

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

—

94

Sleeping In Public



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



related:

Building Complex



A building cannot be a human building unless it is a complex of still smaller buildings or smaller parts which manifest its own internal social facts. Never build large monolithic buildings. Whenever possible translate your building program into a building complex, whose parts manifest the actual social facts of the situation. At low densities, a building complex may take the form of a collection of small buildings...



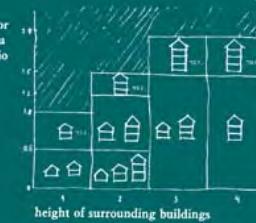
related:

96

Number Of Stories



Within the four-story height limit, just exactly how high should your buildings be? Therefore: First, decide how many square feet of built space you need, and divide by the area of the site to get the floor area ratio. Then choose the height of your buildings according to the floor area ratio and the height of the surrounding buildings from the following table.



related:

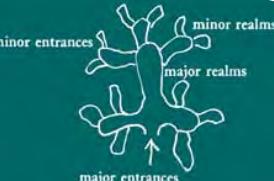
97 Shielded Parking



Large parking structures full of cars are inhuman and dead buildings - no one wants to see them or walk by them. At the same time, if you are driving, the entrance to a parking structure is essentially the main entrance to the building - and it needs to be visible. Therefore: Put all large parking lots, or parking garages, behind some kind of natural wall.



related:



98 Circulation Realms

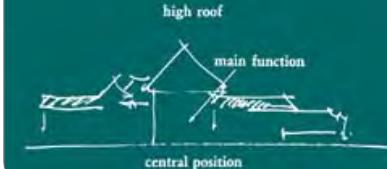


In many modern building complexes the problem of disorientation is acute. People have no idea where they are, and they experience considerable mental stress as a result. Lay out very large buildings and collections of small buildings so that one reaches a given point inside by passing through a sequence of realms, each marked by a gateway and becoming smaller and smaller.

99 Main Building



A complex of buildings with no center is like a man without a head. Therefore: For any collection of buildings, decide which building in the group houses the most essential function - which building is the soul of the group, as a human institution. Then form this building as the main building, with a central position, higher roof. Even if the building complex is so dense that it is a single building.



related:

100

Pedestrian Street



The simple social intercourse created when people rub shoulders in public is one of the most essential kinds of social "glue" in society. Arrange buildings so that they form pedestrian streets with many entrances and open stairs directly from the upper stories to the street, so that even movement between rooms is outdoors, not just movement between buildings.

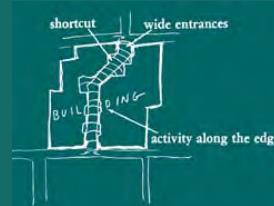


related:

101
Building Thoroughfare



When a public building complex cannot be completely served by outdoor pedestrian streets, a new form of indoor street, quite different from the conventional corridor, is needed. Wherever density or climate force the main lines of circulation indoors, build them as building thoroughfares. Place each thoroughfare in a position where it functions as a shortcut, as continuous as possible with the public street outside, with wide open entrances.

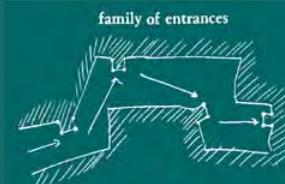


related:

102
Family Of Entrances



This pattern applies to the relationship between these "minor" entrances. When a person arrives in a complex of offices, or services or workshops, or in a group of related houses, there is a good chance he will experience confusion unless the whole collection is laid out before him, so that he can see the entrance of the place where he is going. Lay out the entrances to form a family.



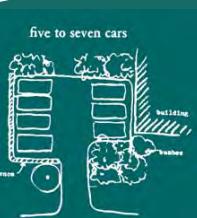
related:

103

Small Parking Lots



Vast parking lots wreck the land for people. Make parking lots small, serving no more than five to seven cars, each lot surrounded by garden walls, hedges, fences, slopes, and trees, so that from outside the cars are almost invisible. Space these small lots so that they are at least 100 feet apart.



related:

Site Repair



Buildings must always be built on those parts of the land which are in the worst condition, not the best. On no account place buildings in the places which are most beautiful. In fact, do the opposite. Consider the site and its buildings as a single living eco-system. Leave those areas that are the most precious, beautiful, comfortable, and healthy as they are.



104

South Facing Outdoors



People use open space if it is sunny, and do not use it if it isn't, in all but desert climates. 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.



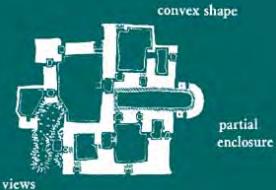
related:

106

Positive Outdoor Space



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



related:

Wings Of Light



Now it is time to start giving the building a more definite shape based on these social groupings. Start by realizing that the building needn't be a massive hulk, but may be broken into wings. Modern buildings are often shaped with no concern for natural light - they depend almost entirely on artificial light. But buildings which displace natural light as the major source of illumination are not fit places to spend the day.

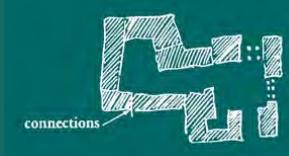


107

Connected Buildings



It helps to create positive outdoor space, especially, by eliminating all the wasted areas between buildings. As you connect each building to the next you will find that you make the outdoor space positive, almost instinctively. Isolated buildings are symptoms of a disconnected sick society. Connect your building up, wherever possible, to the existing buildings round about. Do not keep set backs between buildings.



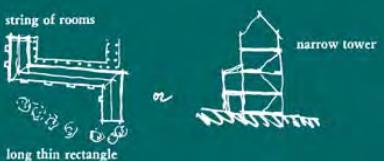
related:

109

Long Thin House



The shape of a building has a great effect on the relative degrees of privacy and overcrowding in it, and this in turn has a critical effect on people's comfort and well being. In small buildings, don't cluster all the rooms together around each other; instead string out the rooms one after another, so that distance between each room is as great as it can be.

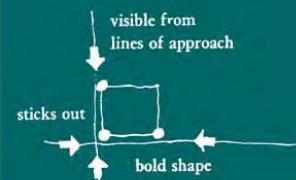


related:

Main Entrance



Now it is time to fix the entrance of the building. Placing the main entrance (or main entrances) is perhaps the single most important step you take during the evolution of a building plan. Place the main entrance of the building at a point where it can be seen immediately from the main avenues of approach and give it a bold, visible shape which stands out in front of the building.

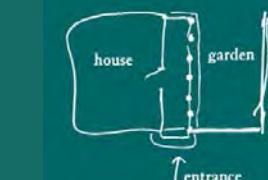


110

Half-Hidden Garden



If a garden is too close to the street, people won't use it because it isn't private enough. But if it is too far from the street, then it won't be used either, because it is too isolated. Do not place the garden fully in front of the house, nor fully to the back. Instead, place it in some kind of half-way position, side-by-side with the house.



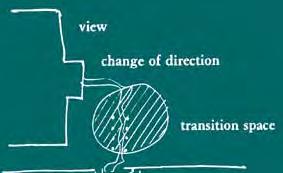
related:

112

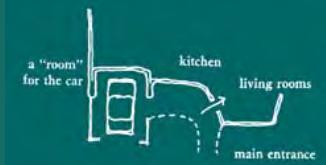
Entrance Transition



Buildings, and especially houses, with a graceful transition between the street and the inside, are more tranquil than those which open directly off the street. Make a transition space between the street and the front door. Bring the path which connects street and entrance through this transition space, and mark it with a change of light, a change of sound, a change of direction, a change of surface, a change of level.



related:



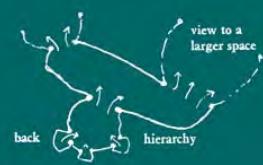
113

Car Connection



The process of arriving in a house, and leaving it, is fundamental to our daily lives; and very often it involves a car. But the place where cars connect to houses, far from being important and beautiful, is often off to one side and neglected. Place the parking place for the car and the main entrance, in such a relation to each other, that the shortest route from the parked car into the house.

related:



114

Hierarchy Of Open Space



Outdoors, people always try to find a spot where they can have their backs protected, looking out toward some larger opening, beyond the space immediately in front of them. Whatever space you are shaping - whether it is a garden, terrace, street, park, public outdoor room, or courtyard, make sure of two things.

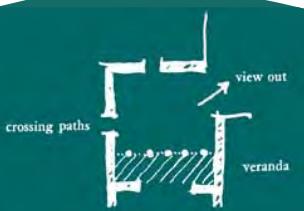
related:

115

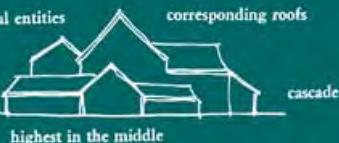
Courtyards Which Live



The courtyards built in modern buildings are very often dead. They are intended to be private open spaces for people to use - but they end up unused, full of gravel and abstract sculptures. Place every courtyard in such a way that there is a view out of it to some larger open space; place it so that at least two or three doors open from the building into it.



related:



116

Cascade Of Roofs



Now we come to the stage where it is necessary to visualize the building as a volume and, therefore, above all else, as a system of roofs. Few buildings will be structurally and socially intact, unless the floors step down toward the ends of wings, and unless the roof, accordingly, forms a cascade. Visualize the whole building, or building complex, as a system of roofs.

related:



The roof plays a primal role in our lives. The most primitive buildings are nothing but a roof. If the roof is hidden, if its presence cannot be felt around the building, or if it cannot be used, then people will lack a fundamental sense of shelter. Slope the roof or make a vault of it, make its entire surface visible, and bring the eaves of the roof down low.

117

Sheltering Roof



related:

118

Roof Garden



A vast part of the earth's surface, in a town, consists of roofs. Couple this with the fact that the total area of a town which can be exposed to the sun is finite, and you will realize that it is natural, and indeed essential, to make roofs which take advantage of the sun and air. Make parts of almost every roof system usable as roof gardens. Make these parts flat, perhaps terraced for planting.



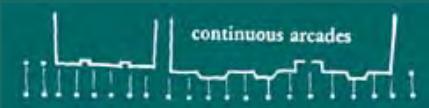
related:

119

Arcades



Arcades - covered walkways at the edge of buildings, which are partly inside, partly outside - play a vital role in the way that people interact with buildings. Wherever paths run along the edge of buildings, build arcades, and use the arcades, above all, to connect up the buildings to one another, so that a person can walk from place to place under the cover of the arcades.



related:

120

Paths And Goals



The layout of paths will seem right and comfortable only when it is compatible with the process of walking. And the process of walking is far more subtle than one might imagine. To lay out paths, first place goals at natural points of interest. Then connect the goals to one another to form the paths. The paths may be straight, or gently curving between goals.



related:

121

Path Shape



Streets should be for staying in, and not just for moving through, the way they are today. Make a bulge in the middle of a public path, and make the ends narrower, so that the path forms an enclosure, which is a place to stay, not just a place to pass through.



related:

Building Fronts



Building set-backs from the street, originally invented to protect the public welfare by giving every building light and air, have actually helped greatly to destroy the street as a social space. On no account allow set-backs between streets or paths or public open land and the buildings which front on them. The set-backs do nothing valuable and almost always destroy the value of the open areas between the buildings.

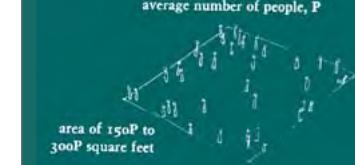


122

Pedestrian Density



Many of our modern public squares, though intended as lively plazas, are in fact deserted and dead. For public squares, courts, pedestrian streets, any place where crowds are drawn together, estimate the mean number of people in the place at any given moment (P), and make the area of the place between $150P$ and $300P$ square feet.



related:

124

Activity Pockets



The life of a public square forms naturally around its edge. If the edge fails, then the space never becomes lively. Surround public gathering places with pockets of activity - small, partly enclosed areas at the edges, which jut forward into the open space between the paths, and contain activities which make it natural for people to pause and get involved.



related:

Stair Seats



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. 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.



125

Something Roughly In The Middle



A public space without a middle is quite likely to stay empty. Between the natural paths which cross a public square or courtyard or a piece of common land choose something to stand roughly in the middle: a fountain, a tree, a statue, a clock-tower with seats, a windmill, a bandstand. Make it something which gives a strong and steady pulse to the square, drawing people in toward the center. Leave it exactly where it falls between the paths; resist the impulse to put it exactly in the middle.



related:

127

Intimacy Gradient



Unless the spaces in a building are arranged in a sequence, which corresponds to their degrees of privateness, the visits made by strangers, friends, guests, clients, family, will always be a little awkward. Lay out the spaces of a building so that they create a sequence which begins with the entrance and the most public parts of the building, then leads into the slightly more private areas, and finally to the most private domains.



related:



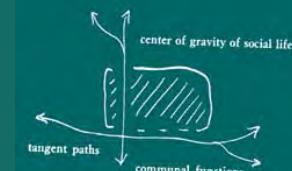
128

Indoor Sunlight



If the right rooms are facing south, a house is bright and sunny and cheerful; if the wrong rooms are facing south, the house is dark and gloomy. Place the most important rooms along the south edge of the building, and spread the building out along the east-west axis.

related:



129

Common Areas At The Heart



No social group - whether a family, a work group, or a school group - can survive without constant informal contact among its members. Create a single common area for every social group. Locate it at the center of gravity of all the spaces the group occupies, and in such a way that the paths which go in and out of the building lie tangent to it.

related:

130

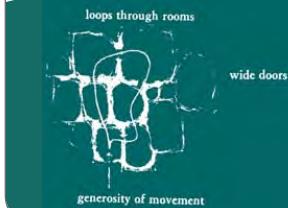
Entrance Room



Arriving in a building, or leaving it, you need a room to pass through, both inside the building and outside it. This is the entrance room. At the main entrance to a building, make a light-filled room which marks the entrance and straddles the boundary between indoors and outdoors, covering some space outdoors and some space indoors. The outside part may be like an old-fashioned porch.



related:



131

The Flow Through Rooms



The movement between rooms is as important as the rooms themselves; and its arrangement has as much effect on social interaction in the rooms, as the interiors of the rooms. As far as possible, avoid the use of corridors and passages. Instead, use public rooms and common rooms as rooms for movement and for gathering. To do this, place the common rooms to form a chain, or loop.

related:



132

Short Passages



"... long, sterile corridors set the scene for everything bad about modern architecture." Keep passages short. Make them as much like rooms as possible, with carpets or wood on the floor, furniture, bookshelves, beautiful windows. Make them generous in shape, and always give them plenty of light; the best corridors and passages of all are those, which have windows along an entire wall.

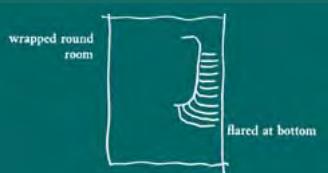
related:

133

Staircase As A Stage



A staircase is not just a way of getting from one floor to another. The stair is itself a space, a volume, a part of the building; and unless this space is made to live, it will be a dead spot, and work to disconnect the building and to tear its processes apart. Place the main stair in a key position, central and visible. Treat the whole staircase as a room.



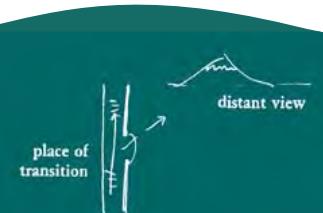
related:

134

Zen View



The archetypal zen view occurs in a famous Japanese house, which gives this pattern its name. If there is a beautiful view, don't spoil it by building huge windows that gape incessantly at it. Instead, put the windows which look onto the view at places of transition along paths, in hallways, in entry ways, on stairs, between rooms.



related:

135

Tapestry Of Light And Dark



In a building with uniform light level, there are few "places" which function as effective settings for human events. This happens because, to a large extent, the places which make effective settings are defined by light. Create alternating areas of light and dark throughout the building, in such a way that people naturally walk toward the light, whenever they are going to important places.



related:

136

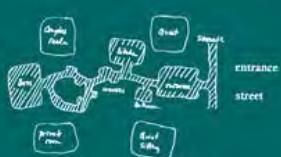
Couple's Realm



The presence of children in a family often destroys the closeness and the special privacy which a man and wife need together. Make a special part of the house distinct from the common areas and all the children's rooms, where the man and woman of the house can be together in private. Give this place a quick path to the children's rooms, but, at all costs, make it a distinctly separate realm.



related:



137

Children's Realm



If children do not have space to release a tremendous amount of energy when they need to, they will drive themselves and everybody else in the family up the wall. Start by placing the small area which will belong entirely to the children - the cluster of their beds. Place it in a separate position toward the back of the house.

Sleeping To The East



This is one of the patterns people most often disagree with. However, we believe they are mistaken. Give those parts of the house where people sleep, an eastern orientation, so that they wake up with the sun and light. This means, typically, that the sleeping area needs to be on the eastern side of the house.

related:

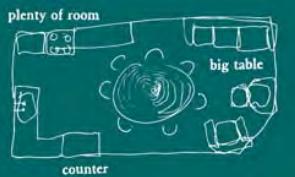


139

Farmhouse Kitchen



The isolated kitchen, separate from the family and considered as an efficient but unpleasant factory for food is a hangover from the days of servants; and from the more recent days when women willingly took over the servants' role. Make the kitchen bigger than usual, big enough to include the "family room" space, and place it near the center of the commons, not so far back in the house as an ordinary kitchen.



related:

Private Terrace On The Street



The relationship of a house to a street is often confused: either the house opens entirely to the street and there is no privacy; or the house turns its back on the street, and communion with street life is lost. Let the common rooms open onto a wide terrace or a porch, which looks into the street. Raise the terrace slightly above street level and protect it with a low wall.

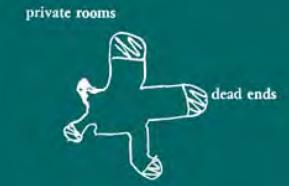


140

A Room Of One's Own



No one can be close to others, without also having frequent opportunities to be alone. Give each member of the family a room of his own, especially adults. A minimum room of one's own is an alcove with desk, shelves, and curtain. The maximum is a cottage. In all cases, especially the adult ones, place these rooms at the far ends of the intimacy gradient - far from the common rooms.



related:

142

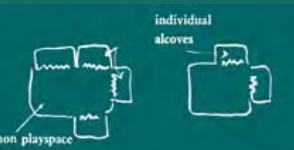
Sequence Of Sitting Spaces



Every corner of a building is a potential sitting space. But each sitting space has different needs for comfort and enclosure according to its position in the intimacy gradient. Put in a sequence of graded sitting spaces throughout the building, varying according to their degree of enclosure. Enclose the most formal ones entirely, in rooms by themselves.



related:



143

Bed Cluster



Every child in the family needs a private place, generally centered around the bed. But in many cultures, perhaps all cultures, young children feel isolated if they sleep alone, if their sleeping area is too private. Place the children's beds in alcoves or small alcove-like rooms, around a common playspace. Make each alcove large enough to contain a table, or chair, or shelves.

144

Bathing Room



"The motions we call bathing are mere ablutions which formerly preceded the bath. The place where they are performed, though adequate for the routine, does not deserve to be called a bathroom." -Bernard Rudofsky. Concentrate the bathing room, toilets, showers, and basins of the house in a single tiled area. Locate this bathing room beside the couple's realm - with private access.



related:

145

Bulk Storage



In houses and workplaces there is always some need for bulk storage space; a place for things like suitcases, old furniture, old files, boxes - all those things which you are not ready to throw away, and yet not using everyday. Do not leave bulk storage till last or forget it. Include a volume for bulk storage in the building - its floor area at least 15 to 20 per cent of the whole building area - not less.



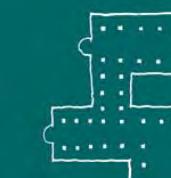
related:

147

Communal Eating



Without communal eating, no human group can hold together. Give every institution and social group a place where people can eat together. Make the common meal a regular event. In particular, start a common lunch in every work place, so that a genuine meal around a common table (not out of boxes, machines, or bags) becomes an important, comfortable, and daily event with room for invited guests.



possibility of many different sized rooms

related:



related:

146

Flexible Office Space



Is it possible to create a kind of space which is specifically tuned to the needs of people working, and yet capable of an infinite number of various arrangements and combinations within it? Lay out the office space as wings of open space, with free standing columns around their edges, so they define half-private and common spaces opening into one another.

147

Communal Eating



Without communal eating, no human group can hold together. Give every institution and social group a place where people can eat together. Make the common meal a regular event. In particular, start a common lunch in every work place, so that a genuine meal around a common table (not out of boxes, machines, or bags) becomes an important, comfortable, and daily event with room for invited guests.



related:

148

Small Work Groups



When more than half a dozen people work in the same place, it is essential that they not be forced to work in one huge undifferentiated space, but that instead, they can divide their workspace up, and so form smaller groups. Break institutions into small, spatially identifiable work groups, with less than half a dozen people in each.



related:

Reception Welcomes You



Have you ever walked into a public building and been processed by the receptionist as if you were a package? Arrange a series of welcoming things immediately inside the entrance - soft chairs, a fireplace, food, coffee. Place the reception desk so that it is not between the receptionist and the welcoming area, but to one side at an angle.



related:

A Place To Wait



The process of waiting has inherent conflicts in it. In places where people end up waiting (for a bus, for an appointment, for a plane), create a situation which makes the waiting positive. Fuse the waiting with some other activity - newspaper, coffee, pool tables, horseshoes; something which draws people in who are not simply waiting.



related:

151

Small Meeting Rooms



The larger meetings are, the less people get out of them. But institutions often put their money and attention into large meeting rooms and lecture halls. Make at least 70 per cent of all meeting rooms really small - for 12 people or less. Locate them in the most public parts of the building, evenly scattered among the workplaces.



related:

152

Half-Private Office



What is the right balance between privacy and connection in office work? Avoid closed off, separate, or private offices. Make every workroom, whether it is for a group of two or three people or for one person, half-open to the other workgroups and the world immediately beyond it. At the front, just inside the door, make comfortable sitting space, with the actual workspace(s) away from the door, and further back.



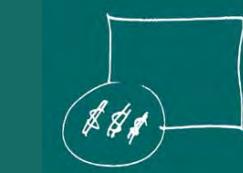
related:

153

Rooms To Rent



As the life in a building changes, the need for space shrinks and swells cyclically. The building must be able to adapt to this irregular increase and decrease in the need for space. Make at least some part of the building rentable: give it a private entrance over and above its regular connection to the rest of the house.



related:

154

Teenager's Cottage



If a teenager's place in the home does not reflect his need for a measure of independence, he will be locked in conflict with his family. To mark a child's coming of age, transform his place in the home into a kind of cottage that expresses in a physical way the beginnings of independence. Keep the cottage attached to the home, but make it a distinctly visible bulge.

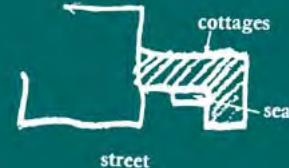


related:

Old Age Cottage



Old people, especially when they are alone, face a terrible dilemma. On the one hand, there are inescapable forces pushing them toward independence: their children move away; the neighborhood changes; their friends and wives and husbands die. On the other hand, by the very nature of aging, old people become dependent on simple conveniences, simple connections to the society about them.



related:

156

Settled Work



The experience of settled work is a prerequisite for peace of mind in old age. Yet our society undermines this experience by making a rift between working life and retirement, and between workplace and home. Give each person, especially as he grows old, the chance to set up a workplace of his own, within or very near his home. Make it a place that can grow slowly.



related:

157

Home Workshop



As the decentralization of work becomes more and more effective, the workshop in the home grows and grows in importance. Make a place in the home, where substantial work can be done; not just a hobby, but a job. Change the zoning laws to encourage modest, quiet work operations to locate in neighborhoods. Give the workshop perhaps a few hundred square feet.



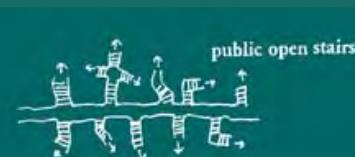
related:

158

Open Stairs



Internal staircases reduce the connection between upper stories and the life of the street to such an extent that they can do enormous social damage. Do away, as far as possible, with internal staircases in institutions. Connect all autonomous households, public services, and work-groups on the upper floors of buildings directly to the ground. Do this by creating open stairs which are approached directly from the street.



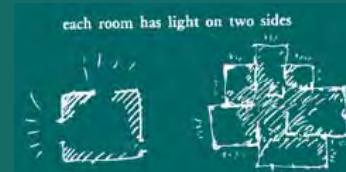
related:

159

Light On Two Sides Of Every Room



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. 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.



related:

160

Building Edge



A building is most often thought of as something which turns inward - toward its rooms. People do not often think of a building as something which must also be oriented toward the outside. Make sure that you treat the edge of the building as a "thing," a "place," a zone with volume to it, not a line or interface which has no thickness. Crenelate the edge of buildings with places that invite people to stop.



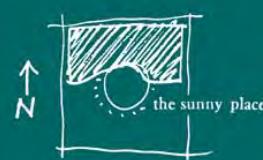
related:

161

Sunny Place



The area immediately outside the building, to the south - that angle between its walls and the earth where the sun falls - must be developed and made into a place which lets people bask in it. Inside a south-facing court, or garden, or yard, find the spot between the building and the outdoors which gets the best sun. Develop this spot as a special sunny place.



related:

162

North Face



Look at the north sides of the buildings which you know. Almost everywhere you will find that these are the spots which are dead and dank, gloomy and useless. Yet there are hundreds of acres in a town on the north sides of buildings; and it is inevitable that there must always be land in this position, wherever there are buildings.



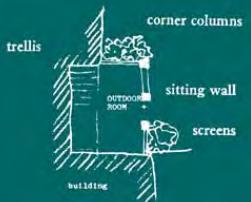
related:

163

Outdoor Room



A garden is the place for lying in the grass, swinging, croquet, growing flowers, throwing a ball for the dog. But there is another way of being outdoors: and its needs are not met by the garden at all. Build a place outdoors which has so much enclosure round it, that it takes on the feeling of a room, even though it is open to the sky.



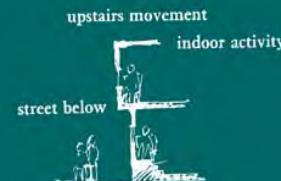
related:

164

Street Windows



A street without windows is blind and frightening. And it is equally uncomfortable to be in a house which bounds a public street with no window at all on the street. Where buildings run alongside busy streets, build windows with window seats, looking out onto the street. Place them in bedrooms or at some point on a passage or stair, where people keep passing by.



related:

165

Opening To The Street



The sight of action is an incentive for action. When people can see into spaces from the street their world is enlarged and made richer, there is more understanding; and there is the possibility for communication, learning. In any public space which depends for its success on its exposure to the street, open it up, with a fully opening wall which can be thrown wide open.



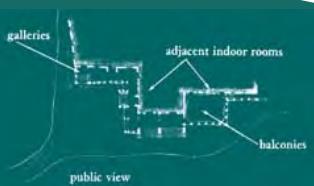
related:

166

Gallery Surround



If people cannot walk out from the building onto balconies and terraces which look toward the outdoor space around the building, then neither they themselves nor the people outside have any medium which helps them feel the building and the larger public world are intertwined. Whenever possible, and at every story, build porches, galleries, arcades, balconies, niches, outdoor seats, awnings, trellised rooms, and the like at the edges of buildings.



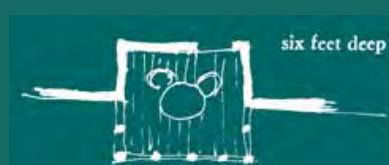
related:

167

Six-Foot Balcony



Balconies and porches which are less than six feet deep are hardly ever used. Whenever you build a balcony, a porch, a gallery, or a terrace always make it at least six feet deep. If possible, recess at least a part of it into the building so that it is not cantilevered out and separated from the building by a simple line, and enclose it partially.



related:

168

Connection To The Earth



A house feels isolated from the nature around it, unless its floors are interleaved directly with the earth that is around the house. Connect the building to the earth around it by building a series of paths and terraces and steps around the edge. Place them deliberately to make the boundary ambiguous - so that it is impossible to say exactly where the building stops and earth begins.



related:

169

Terraced Slope



On sloping land, erosion caused by run off can kill the soil. It also creates uneven distribution of rainwater over the land, which naturally does less for plant life than it could if it were evenly distributed. On all land which slopes - in fields, in parks, in public gardens, even in the private gardens around a house - make a system of terraces and bunds which follow the contour lines.



related:

170

Fruit Trees



In the climates where fruit trees grow, the orchards give the land an almost magical identity: think of the orange groves of Southern California, the cherry trees of Japan, the olive trees of Greece. But the growth of cities seems always to destroy these trees and the quality they possess. Plant small orchards of fruit trees in gardens and on common land along paths and streets, in parks, in neighborhoods.



related:

171

Tree Places



When trees are planted or pruned without regard for the special places they can create, they are as good as dead for the people who need them. If you are planting trees, plant them according to their nature, to form enclosures, avenues, squares, groves, and single spreading trees toward the middle of open spaces.



related:

172

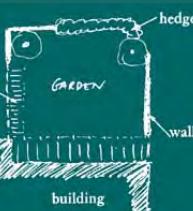
Garden Growing Wild



A garden which grows true to its own laws is not a wilderness, yet not entirely artificial either. Grow grasses, mosses, bushes, flowers, and trees in a way which comes close to the way that they occur in nature: intermingled, without barriers between them, without bare earth, without formal flower beds, and with all the boundaries and edges made in rough stone and brick and wood which become a part of the natural growth.



related:

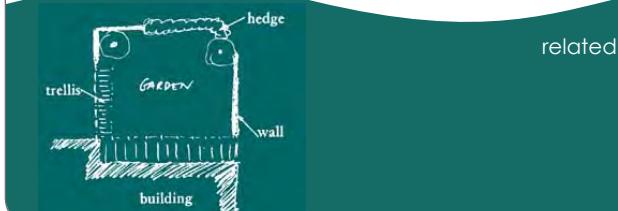


173

Garden Wall



Gardens and small public parks don't give enough relief from noise unless they are well protected. Form some kind of enclosure to protect the interior of a quiet garden from the sights and sounds of passing traffic. If it is a large garden or a park, the enclosure can be soft, can include bushes, trees, slopes, and so on. The smaller the garden, however, the harder and more definite the enclosure must become.



related:



Trellised walks have their own special beauty. They are so unique, so different from other ways of shaping a path, that they are almost archetypal. Where paths need special protection or where they need some intimacy, build a trellis over the path and plant it with climbing flowers. Use the trellis to help shape the outdoor spaces on either side of it.

174

Trellised Walk



related:

175

Greenhouse



Many efforts are being made to harness solar energy by converting it into hot water or electric power. And yet the easiest way to harness solar energy is the most obvious and the oldest: namely, to trap the heat inside a greenhouse and use it for growing flowers and vegetables. In temperate climates, build a greenhouse as part of your house or office, so that it is both a "room" of the house, which can be reached directly without going outdoors and a part of the garden which can be reached directly from the garden.



related:

Garden Seat



Somewhere in every garden, there must be at least one spot, a quiet garden seat, in which a person - or two people - can reach into themselves and be in touch with nothing else but nature. Make a quiet place in the garden - a private enclosure with a comfortable seat, thick planting, sun.



176

Vegetable Garden



In a healthy town every family can grow vegetables for itself. The time is past to think of this as a hobby for enthusiasts; it is a fundamental part of human life. Set aside one piece of land either in the private garden or on common land as a vegetable garden. About one-tenth of an acre is needed for each family of four. Make sure the vegetable garden is in a sunny place.



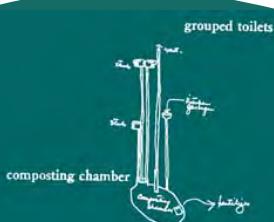
related:

178

Compost



Our current ways of getting rid of sewage poison the great bodies of natural water, and rob the land around our buildings of the nutrients they need. Arrange all toilets over a dry composting chamber. Lead organic garbage chutes to the same chamber, and use the combined products for fertilizer.



related:

179

Alcoves



No homogeneous room, of homogeneous height, can serve a group of people well. To give a group a chance to be together, as a group, a room must also give them the chance to be alone, in one's and two's in the same space. Therefore: Make small places at the edge of any common room, usually no more than 6 feet wide and 3 to 6 feet deep and possibly much smaller.



180

Window Place



According to the pattern, at least one of the windows in each room needs to be shaped in such a way as to increase its usefulness as a space. Everybody loves window seats, bay windows, and big windows with low sills and comfortable chairs drawn up to them. Therefore: In every room where you spend any length of time during the day, make at least one window into a "window place."



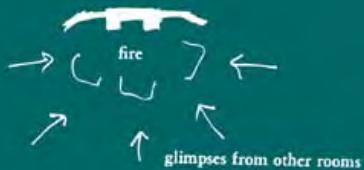
related:

181

The Fire



There is no substitute for fire. Build the fire in a common space - perhaps in the kitchen - where it provides a natural focus for talk and dreams and thought. Adjust the location until it knits together the social spaces and rooms around it, giving them each a glimpse of the fire; and make a window or some other focus to sustain the place during the times when the fire is out.



related:



light in the middle

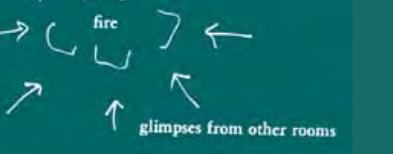
182

Eating Atmosphere



When people eat together, they may actually be together in spirit - or they may be far apart. Some rooms invite people to eat leisurely and comfortably and feel together, while others force people to eat as quickly as possible so they can go somewhere else to relax. Put a heavy table in the center of the eating space - large enough for the whole family or the group of people using it.

related:

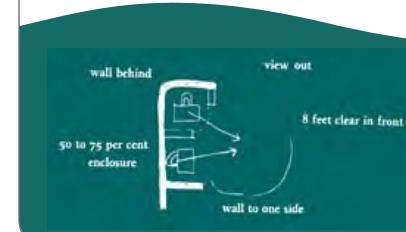


related:



183
Workspace Enclosure

People cannot work effectively if their workspace is too enclosed or too exposed. A good workspace strikes the balance. Give each workspace an area of at least 60 square feet. Build walls and windows round each workspace to such an extent that their total area (counting windows at one-half) is 50 to 75 per cent of the full enclosure.



184

Cooking Layout



Cooking is uncomfortable if the kitchen counter is too short and also if it is too long. Therefore: To strike the balance between the kitchen which is too small, and the kitchen which is too spread out, place the stove, sink, and food storage and counter



related:

Sitting Circle



A group of chairs, a sofa and a chair, a pile of cushions - these are the most obvious things in everybody's life and yet to make them work, so people become animated and alive in them, is a very subtle business. Most seating arrangements are sterile, people avoid them, nothing ever happens there. Others seem somehow to gather life around them, to concentrate and liberate energy. What is the difference between the two?



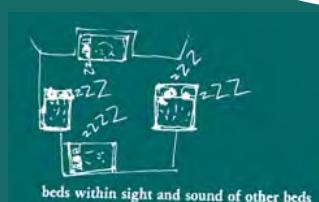
related:

186

Communal Sleeping



In many traditional and primitive cultures, sleep is a communal activity without the sexual overtones it has in the West today. We believe that it may be a vital social function, which plays a role as fundamental and as necessary to people as communal eating. Arrange the sleeping area so that there is the possibility for children and adults to sleep in the same space, in sight and sound of one another, at least as an occasional alternative to their more usual sleeping habits.



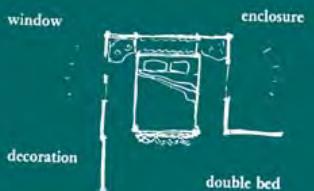
related:

187

Marriage Bed



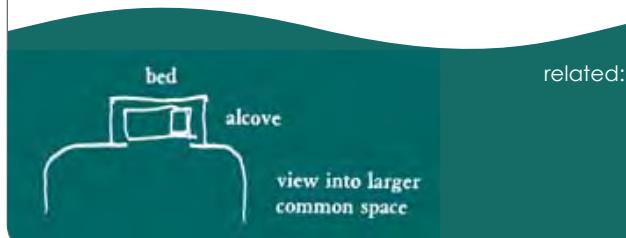
The bed is the center of a couple's life together: the place where they lie together, talk, make love, sleep, sleep late, take care of each other during illness. But beds and bedrooms are not often made in ways which intensify their meaning, and these experiences cannot take hold. At the right moment in a couple's life, it is important that they make for themselves a special bed.



related:

188
Bed Alcove

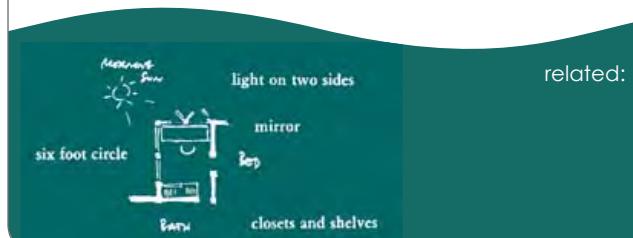
...even in the smallest house, not only the adults, but every child can have at least a small place to call his own. Bedrooms make no sense. Therefore: Don't put single beds in empty rooms called bedrooms, but instead put individual bed alcoves off rooms with other nonsleeping functions, so the bed itself becomes a tiny private haven.



related:

189
Dressing Room

Dressing and undressing, storing clothes, having clothes lying around, have no reason to be part of any larger complex of activities. Indeed they disturb other activities: they are so self-contained that they themselves need concentrated space which has no other function. Therefore: Give everyone a dressing room-either private or shared - between their bed and the bathing room.



related:

190

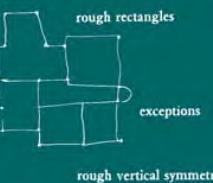
Ceiling Height Variety



A building in which the ceiling heights are all the same is virtually incapable of making people comfortable. Vary the ceiling heights continuously throughout the building, especially between rooms which open into each other, so that the relative intimacy of different spaces can be felt.



related:

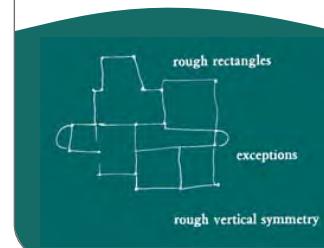


191

The Shape Of Indoor Space



The perfectly crystalline squares and rectangles of ultramodern architecture make no special sense in human or in structural terms. They only express the rigid desires and fantasies which people have when they get too preoccupied with systems and the means of their production. With occasional exceptions, make each indoor space or each position of a space, a rough rectangle.



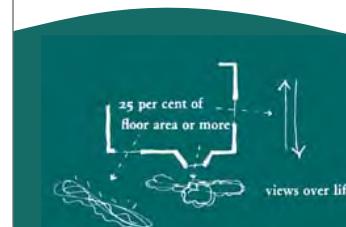
related:

192

Windows Overlooking Life



Rooms without a view are prisons for the people who have to stay in them. In each room, place the windows in such a way that their total area conforms roughly to the appropriate figures for your region (25 per cent or more of floor area, in the San Francisco Bay Area), and place them in positions which give the best possible views out over life: activities in streets, quiet gardens, anything different from the indoor scene.



related:

193

Half-Open Wall



Rooms which are too closed prevent the natural flow of social occasions, and the natural process of transition from one social moment to another. And rooms which are too open will not support the differentiation of events which social life requires. Adjust the walls, openings, and windows in each indoor space until you reach the right balance between open, flowing space and closed cell-like space.



related:

194

Interior Windows



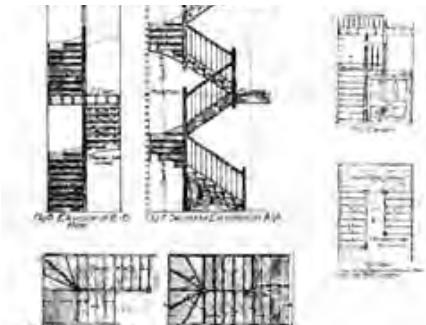
Windows are most often used to create connections between the indoor and the outdoors. But there are many cases when an indoor space needs a connecting window to another indoor space. Put in fully glazed fixed windows between rooms which tend to be dead because they have too little action in them or where inside rooms are unusually dark.



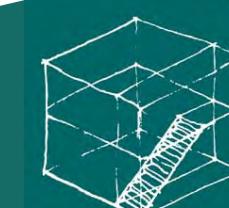
related:

195

Staircase Volume

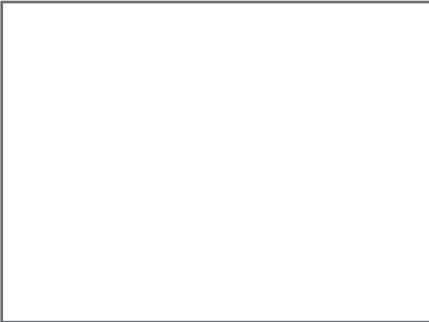


We are putting this pattern in the language because our experiments have shown us that lay people often make mistakes about the volume which a staircase needs and therefore make their plans unbuildable. Make a two story volume to contain the stairs. It may be straight, L-shaped, U-shaped, or C-shaped.

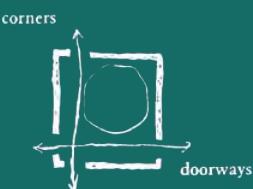


related:

Corner Doors



The success of a room depends to a great extent on the position of the doors. If the doors create a pattern of movement, which destroys the places in the room, the room will never allow people to be comfortable. Except in very large rooms, a door only rarely makes sense in the middle of a wall.



related:

196

Thick Walls



Houses with smooth hard walls made of prefabricated panels, concrete, gypsum, steel, aluminum, or glass always stay impersonal and dead. Open your mind to the possibility that the walls of your building can be thick, can occupy a substantial volume - even actual usable space - and need not be merely thin membranes which have no depth. Decide where these thick walls ought to be.



hand-carveable

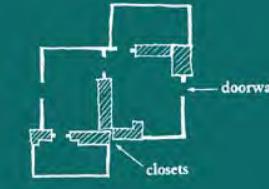
related:

197

Closets Between Rooms



The provision of storage and closets usually comes as an afterthought. Mark all the rooms where you want closets. Then place the closets themselves on those interior walls, which lie between two rooms and between rooms and passages where you need acoustic insulation. Place them so as to create transition spaces for the doors into the rooms.



related:

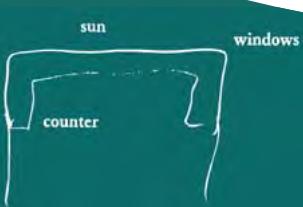
198

199

Sunny Counter



Dark gloomy kitchens are depressing. The kitchen needs the sun more than the other rooms, not less. Place the main part of the kitchen counter on the south and southeast side of the kitchen, with big windows around it, so that sun can flood in and fill the kitchen with yellow light both morning and afternoon.



related:

Open Shelves



Cupboards that are too deep waste valuable space, and it always seems that what you want is behind something else. Therefore: Cover the walls with narrow shelves of varying depth but always shallow enough so that things can be placed on them one deep - nothing hiding behind anything else.



200

Waist-High Shelf



In every house and every workplace there is a daily "traffic" of the objects which are handled most. Unless such things are immediately at hand, the flow of life is awkward, full of mistakes; things are forgotten, misplaced. Build waist-high shelves around at least a part of the main rooms where people live and work.



related:

202

Built-In Seats



Built-in seats are great. Everybody loves them. They make a building feel comfortable and luxurious. But most often they do not actually work. They are placed wrong, or too narrow, or the back does not slope, or the view is wrong, or the seat is too hard. This pattern tells you what to do to make a built-in seat that really works.



related:

203

Child Caves



Children love to be in tiny, cave-like places. Therefore: Wherever children play, around the house, in the neighborhood, in schools, make small "caves" for them. Tuck these caves away in natural left over spaces, under stairs, under kitchen counters. Keep the ceiling heights low - 2 feet 6 inches to 4 feet - and the entrance tiny.



related:

204

Secret Place



Where can the need for concealment be expressed; the need to hide; the need for something precious to be lost, and then revealed? Make a place in the house, perhaps only a few feet square, which is kept locked and secret; a place which is virtually impossible to discover - until you have been shown where it is; a place where the archives of the house, or other more potent secrets, might be kept.



related:

205

Structure Follows Social Spaces



No building ever feels right to the people in it unless the physical spaces (defined by columns, walls, and ceilings) are congruent with the social spaces (defined by activities and human groups). A first principle of construction: on no account allow the engineering to dictate the building's form. Place the load bearing elements - the columns and the walls and floors - according to the social spaces of the building.



related:

206

Efficient Structure



Some buildings have column and beam structures; others have load-bearing walls with slab floors; others are vaulted structures, or domes, or tents. But which of these, or what mixture of them, is actually the most efficient? What is the best way to distribute materials throughout a building, so as to enclose the space, strongly and well, with the least amount of material? Conceive the building as a building made from one continuous body of compressive material.



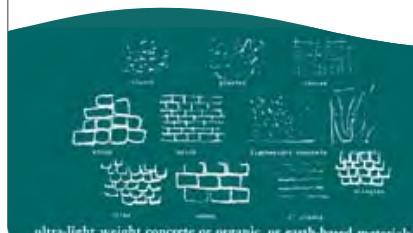
related:

207

Good Materials



There is a fundamental conflict in the nature of materials for building in industrial society. Use only biodegradable, low energy consuming materials, which are easy to cut and modify on site. For bulk materials we suggest ultra-lightweight 40-60 lbs. concrete and earth-based materials like tamped earth, brick, and tile.



related:

208

Gradual Stiffening



The fundamental philosophy behind the use of pattern languages is that buildings should be uniquely adapted to individual needs and sites; and that the plans of buildings should be rather loose and fluid, in order to accommodate these subtleties. Recognize that you are not assembling a building from components like an erector set, but that you are instead weaving a structure which starts out globally complete, but flimsy.



related:

1

soft skin formwork

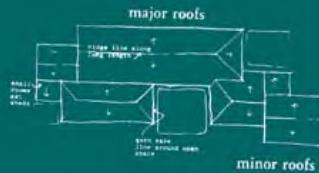
compressive fill

2

Roof Layout



What kind of roof plan is organically related to the nature of your building? Arrange the roofs so that each distinct roof corresponds to an identifiable social entity in the building or building complex. Place the largest roofs - those which are highest and have the largest span - over the largest and most important and most communal spaces; build the lesser roofs off these largest and highest roofs.



related:

1

3

209

Floor And Ceiling Layout



Again, the basic problem is to maintain the integrity of the social spaces in the plan. Draw a vault plan, for every floor. Use two-way vaults most often; and one-way barrel vaults for any spaces which are more than twice as long as they are wide. Draw sections through the building as you plan the vaults, and bear the following facts in mind.



related:

1

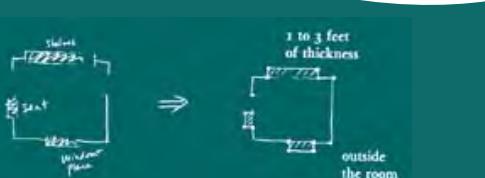
2

211

Thickening The Outer Walls



We have established in Thick Walls (197), how important it is for the walls of a building to have "depth" and "volume," so that character accumulates, in them, with time. But when it comes to laying out a building and constructing it, this turns out to be quite hard to do. Mark all those places in the plan where seats and closets are to be.

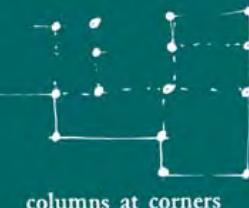


related:

Columns At The Corners



We have already established the idea that the structural components of a building should be congruent with its social spaces. On your rough building plan, draw a dot to represent a column at the corner of every room and in the corners formed by lesser spaces like thick walls and alcoves. Then transfer these dots onto the ground out on the site with stakes.

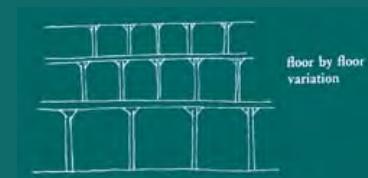


212

Final Column Distribution



How should the spacing of the secondary columns which stiffen the walls, vary with ceiling height, number of stories and the size of rooms? Make column stiffeners furthest apart on the ground floor and closer and closer together as you go higher in the building. The exact column spacings for a particular building will depend on heights and loads and wall thicknesses.



related:

214

Root Foundations



The best foundations of all are the kinds of foundations which a tree has - where the entire structure of the tree simply continues below ground level, and creates a system entirely integral with the ground, in tension and compression. Try to find a way of making foundations in which the columns themselves go right into the earth, and spread out there - so that the footing is continuous with the material of the column, and the column, with its footing, like a tree root, can resist tension and horizontal shear as well as compression.



related:

215

Ground Floor Slab



It is a simple slab, which forms the ground floor of the building... The slab is the easiest, cheapest, and most natural way to lay a ground floor. Build a ground floor slab, raised slightly - six or nine inches above the ground - by first building a low perimeter wall around the building, tied into the column foundations, and then filling it with rubble, gravel, and concrete.



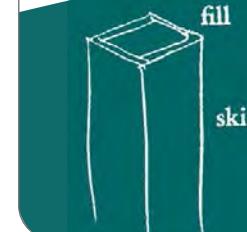
related:

216

Box Columns



In all the world's traditional and historic buildings, the columns are expressive, beautiful, and treasured elements. Only in modern buildings have they become ugly and meaningless. Make the columns in the form of filled hollow tubes, with a stiff tubular outer skin, and a solid core that is strong in compression. Give the skin of the column some tensile strength - preferably in the skin itself, but perhaps with reinforcing wires in the fill.



related:

217

Perimeter Beams



If you conceive and build a room by first placing columns at the corners, and then gradually weaving the walls and ceiling round them, the room needs a perimeter beam around its upper edge. Build a continuous perimeter beam around the room, strong enough to resist the horizontal thrust of the vault above, to spread the loads from upper stories onto columns, to tie the columns together.



related:

218

Wall Membranes



In organic construction the walls must take their share of the loads. They must work continuously with the structure on all four of their sides; and act to resist shear and bending, and take loads in compression. Build the wall as a membrane which connects the columns and door frames and windows frames and is, at least in part, continuous with them.



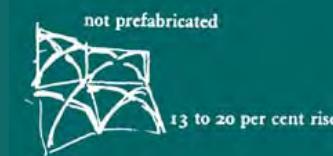
related:

219

Floor-Ceiling Vaults



We seek a ceiling vault shape which will support a live load on the floor above, form the ceiling of the room below, and generate as little bending and tension as possible so that compressive materials can be relied on. Therefore: Build floors and ceilings in the form of elliptical vaults which rise between 13 and 20 per cent of the shorter span.



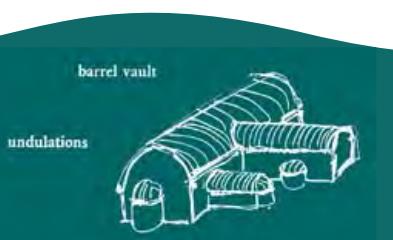
related:

220

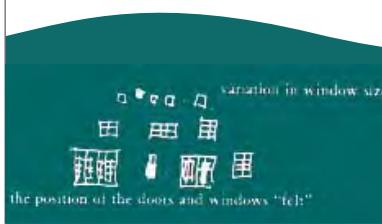
Roof Vaults



What is the best shape for a roof? Therefore: Build the roof vault either as a cylindrical barrel vault, or like a pitched roof with a slight convex curve in each of the two sloping sides. Put in undulations along the vault, to make the shell more effective. The curvature of the main shell, and of the undulations, can vary with the span.



related:



221

Natural Doors And Windows



Finding the right position for a window or a door is a subtle matter. But there are very few ways of building which take this into consideration. On no account use standard doors or windows. Make each window a different size, according to its place. Do not fix the exact position or size of the door and window frames until the rough framing of the room has actually been built.

related:



222

Low Sill



One of a window's most important functions is to put you in touch with the outdoors. If the sill is too high, it cuts you off. When determining exact location of windows also decide which windows should have low sills. On the first floor, make the sills of windows, which you plan to sit by between 12 and 14 inches high.

related:

223

Deep Reveals



Windows with a sharp edge where the frame meets the wall create harsh, blinding glare, and make the rooms they serve uncomfortable. Make the window frame a deep, splayed edge: about a foot wide and splayed at about 50 to 60 degrees to the plane of the window, so that the gentle gradient of daylight gives a smooth transition...



related:

224

Low Doorway



High doorways are simple and convenient. But a lower door is often more profound. Instead of taking it for granted that your doors are simply 6' 8" rectangular openings to pass through, make at least some of your doorways low enough so that the act of going through the door is a deliberate, thoughtful passage from one place to another.



related:

225

Frames As Thickened Edges



Any homogeneous membrane, which has holes in it will tend to rupture at the holes, unless the edges of the holes are reinforced by thickening. Do not consider door and window frames as separate rigid structures which are inserted into holes in walls. Think of them instead as thickenings of the very fabric of the wall itself, made to protect the wall against the concentrations of stress which develop around openings.



related:

226

Column Place



Thin columns, spindly columns, columns which take their shape from structural arguments alone, will never make a comfortable environment. When a column is free standing, make it as thick as a man - at least 12 inches, preferably 16 inches; and form places around it where people can sit and lean comfortably: a step, a small seat built up against the column, or a space formed by a pair of columns.



related:

227

Column Connection



The strength of a structure depends on the strength of its connections; and these connections are most critical of all at corners, especially at the corners where the columns meet the beams. Build connections where the columns meet the beams. Any distribution of material which fills the corner up will do: fillets, gussets, column capitals, mushroom column, and most general of all, the arch.



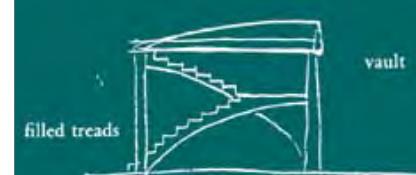
related:

228

Stair. Vault



Within a building technology which uses compressive materials as much as possible, and excludes the use of wood, it is natural to build stairs over a vaulted void, simply to save weight and materials. Therefore: Build a curved diagonal vault in the same way that you build your Floor-Ceiling Vaults (219). Once the vault hardens, cover it with steps of lightweight concrete, trowel-formed into position.



related:

229

Duct Space



You never know where pipes and conduits are; they are buried somewhere in the walls; but where exactly are they? Make ducts to carry hot air conduit, plumbing, gas, and other services in the triangular space, within the vault, around the upper edge of every room. Connect the ducts for different rooms by vertical ducts, in special chases, in the corners of rooms.

wall-ceiling triangle



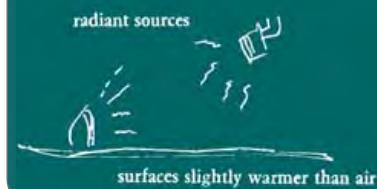
related:

Radiant Heat



This pattern is a biologically precise formulation of the intuition that sunlight and a hot blazing fire are the best kinds of heat. Choose a way of heating your space—especially those rooms where people are going to gather when it is cold that is essentially a radiative process, where the heat comes more from radiation than convection.

radiant sources



230

Dormer Windows



We know from our discussion of Sheltering Roof (117) that the top story of the building should be right inside the roof, surrounded by it. Therefore: Wherever you have windows in the roof, make dormer windows which are high enough to stand in, and frame them like any other alcoves in the building.

dormer



related:

232

Roof Caps



There are few cases in traditional architecture where builders have not used some roof detail to cap the building with an ornament. Choose a natural way to cap the roof - some way which is in keeping with the kind of construction, and the meaning of the building. The caps may be structural; but their main function is decorative - they mark the place where the roof penetrates the sky.



related:

233

Floor Surface



We want the floor to be comfortable, warm to the touch, inviting. But we also want it to be hard enough to resist wear, and easy to clean. Zone the house, or building, into two kinds of zones: public zones, and private or more intimate zones. Use hard materials like waxed, red polished concrete, tiles, or hardwood in the public zones.



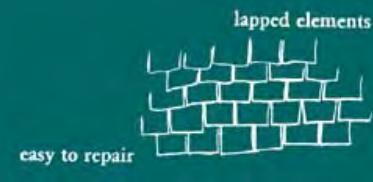
related:

234

Lapped Outside Walls



The main function of a building's outside wall is to keep weather out. It can only do this if the materials are joined in such a way that they cooperate to make impervious joints. Build up the exterior wall surface with materials that are lapped against the weather: either "internally lapped," like exterior plaster, or more literally lapped, like shingles and boards and tiles.



related:

235

Soft Inside Walls



If it is possible to use a soft material for the inner sheet of the wall membrane, then the wall will have the right character built in from the beginning. A wall which is too hard or too cold or too solid is unpleasant to touch; it makes decoration impossible, and creates hollow echoes.



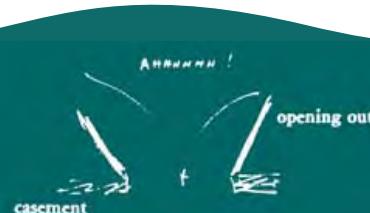
related:

236

Windows Which Open Wide



Many buildings nowadays have no opening windows at all; and many of the opening windows that people do build, don't do the job that opening windows ought to do.



related:

237

Solid Doors With Glass



... even if the windows are beautifully placed, glare can still be a problem. Light filtered through leaves, or tracery, is wonderful. But why? Where the edge of a window or the overhanging eave of a roof is silhouetted against the sky, make a rich, detailed tapestry of light and dark, to break up the light and soften it.



related:

238

Filtered Light



Light filtered through leaves, or tracery, is wonderful. But why? Where the edge of a window or the overhanging eave of a roof is silhouetted against the sky, make a rich, detailed tapestry of light and dark, to break up the light and soften it.



related:

Small Panes



In most cases, the glazing can be built as a continuation of the Frames As Thickened Edges (225). When plate glass windows became possible, people thought that they would put us more directly in touch with nature. In fact, they do the opposite.

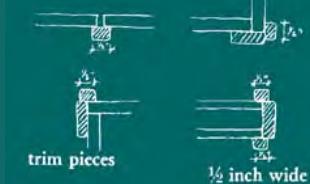


239

Half-Inch Trim



Totalitarian, machine buildings do not require trim because they are precise enough to do without. But they buy their precision at a dreadful price: by killing the possibility of freedom in the building plan. Wherever two materials meet, place a piece of trim over the edge of the connection. Choose the pieces of trim so that the smallest piece, in each component, is always of the order of 1/2 inch wide. The trim can be wood, plaster, terracotta....



related:

241

Seat Spots



Where outdoor seats are set down without regard for view and climate, they will almost certainly be useless. Choosing good spots for outdoor seats is far more important than building fancy benches. Indeed, if the spot is right, the most simple kind of seat is perfect. In cool climates, choose them to face the sun, and to be protected from the wind.



related:

242

Front Door Bench



People like to watch the street. Build a special bench outside the front door where people from inside can sit comfortably for hours on end and watch the world go by. Place the bench to define a half-private domain in front of the house. A low wall, planting, a tree, can help to create the same domain.



related:

243

Sitting Wall



In many places walls and fences between outdoor spaces are too high; but no boundary at all does injustice to the subtlety of the divisions between the spaces. Surround any natural outdoor area, and make minor boundaries between outdoor areas with low walls, about 16 inches high, and wide enough to sit on, at least 12 inches wide.



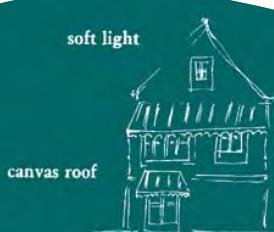
related:

244

Canvas Roofs



There is a very special beauty about tents and canvas awnings. The canvas has a softness, a suppleness, which is in harmony with wind and light and sun. A house or any building built with some canvas will touch all the elements more nearly than it can when it is made only with hard conventional materials.



related:

245

Raised Flowers



Flowers are beautiful along the edges of paths, buildings, outdoor rooms - but it is just in these places that they need the most protection from traffic. Without some protection they cannot easily survive. Soften the edges of buildings, paths, and outdoor areas with flowers. Raise the flower beds so that people can touch the flowers, bend to smell them, and sit by them. And build the flower beds with solid edges, so that people can sit on them, among the flowers too.



related:

246

Climbing Plants



A building finally becomes a part of its surroundings when the plants grow over parts of it as freely as they grow along the ground. On sunny walls, train climbing plants to grow up round the openings in the wall-the windows, doors, porches, arcades, and trellises.



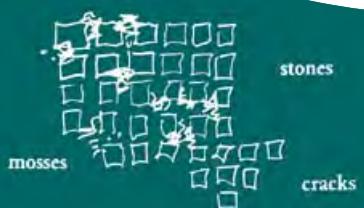
related:

247

Paving With Cracks Between The Stones



Asphalt and concrete surfaces outdoors are easy to wash down, but they do nothing for us, nothing for the paths, and nothing for the rainwater and plants. On paths and terraces, lay paving stones with a 1 inch crack between the stones, so that grass and mosses and small flowers can grow between the stones. Lay the stones directly into earth, not into mortar, and, of course, use no cement or mortar in between the stones.



related:

248

Soft Tile And Brick



How can a person feel the earth, or time, or any connection with his surroundings, when he is walking on the hard mechanical wash-easy surfaces of concrete, asphalt, hard-fired architectural paving bricks, or artificially concocted mixes like terrazzo. Use bricks and tiles which are soft baked, low fired - so that they will wear with time, and show the marks of use.



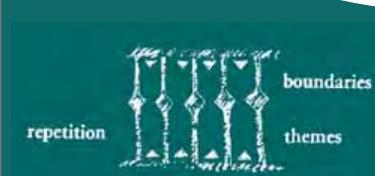
related:

249

Ornament



All people have the instinct to decorate their surroundings. Therefore: Search around the building, and find those edges and transitions which need emphasis or extra binding energy. Corners, places where materials meet, door frames, windows, main entrances, the place where one wall meets another, the garden gate, a fence - all these are natural places which call out for ornament.



related:

Warm Colors



The greens and greys of hospitals and office corridors are depressing and cold. Natural wood, sunlight, bright colors are warm. In some way, the warmth of the colors in a room makes a great deal of difference between comfort and discomfort. Choose surface colors which, together with the color of the natural light, reflected light, and artificial lights, create a warm light in the rooms.



related:
Half-Inch Trim (240),
Ornament (249), Pools Of
Light (257), Canvas Roofs
(244) Soft Tile And Brick (248)



Different Chairs



People are different sizes; they sit in different ways. And yet there is a tendency in modern times to make all chairs alike. Never furnish any place with chairs that are identically the same. Choose a variety of different chairs, some big, some small, some softer than others, some rockers, some very old, some new...

related:
Sequence Of Sitting Spaces
(142), Sitting Circle (185),
Built-In Seats (202)

Pools Of Light



Uniform illumination - the sweetheart of the lighting engineers - serves no useful purpose whatsoever. In fact, it destroys the social nature of space, and makes people feel disoriented and unbound-ed. Place the lights low, and apart, to form individual pools of light which encompass chairs and tables like bubbles to reinforce the social charac-ter of the spaces which they form.



related:
Alcoves (179) Workspace
Enclosure (183), Common Areas
At The Heart (129), Entrance
Room (130), Flexible Office Space
(146), Eating Atmosphere (182),
Sitting Circle (185), Different
Chairs (251) Warm Colors (250).

250

251

252

Things From Your Life



... lastly, when you have taken care of everything, and you start living in the places you have made, you may wonder what kinds of things to pin up on the walls. It is most beautiful when it comes straight from your life - the things you care for, the things that tell your story.

