

ROUEN IN THE TENTH CENTURY, BUILT ON THE RECTILINEAR ROMAN PLAN

The cathedral was built on the site of the ancient public buildings. In 1750 the new wall took in the neighbouring approaches ; the fate of the town was decided. The heart of the city has remained rectilinear throughout the ages.

I

THE PACK-DONKEY'S WAY AND MAN'S WAY

MAN walks in a straight line because he has a goal and knows where he is going ; he has made up his mind to reach some particular place and he goes straight to it.

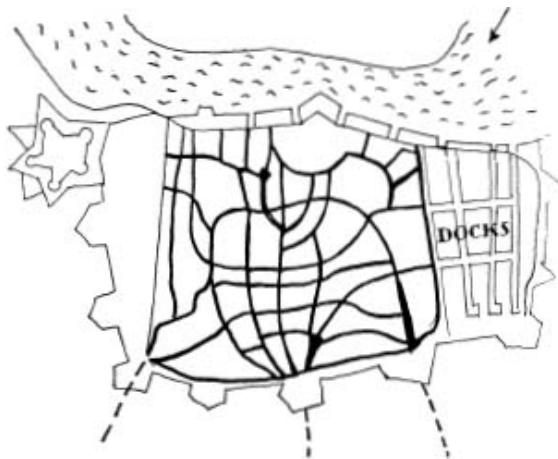
The pack-donkey meanders along, meditates a little in his scatter-brained and distracted fashion, he zigzags in order to avoid the larger stones, or to ease the climb, or to gain a little shade ; he takes the line of least resistance.

But man governs his feelings by his reason ; he keeps his feelings and his instincts in check, subordinating them to the aim he has in view. He rules the brute creation by his intelligence. His intelligence formulates laws which are the product of experience. His experience is born of work; man works in order that he may not perish. In order that production may be possible, a line of conduct is essential, the laws of experience must be obeyed. Man must consider the result in advance.

But the pack-donkey thinks of nothing at all, except what will save himself trouble.

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The Pack-Donkey's Way is responsible for the plan of every continental city ; including Paris, unfortunately.



ANTWERP IN THE SEVENTEENTH CENTURY

The city has grown year by year, its plan being dictated by the existing roads leading to it. The result is an ingenious series of adaptations made during many centuries. None the less, the plan is a fine one of a curvilinear type.

In the areas into which little by little invading populations filtered, the covered wagon lumbered along at the mercy of bumps and hollows, of rocks or mire ; a stream was an intimidating obstacle. In this way were born roads and tracks. At cross roads or along river banks the first huts were erected, the first houses and the first villages ; the houses were planted along the tracks, along the Pack-Donkey's Way. The inhabitants built a fortified wall round and a town hall inside it. They legislated, they toiled, they lived, and always they respected the Pack-Donkey's Way. Five centuries later another and larger enclosure was built, and five centuries later still a third yet greater. The places where the Pack-Donkey's Way entered the town became the City Gates and the Customs officers were installed there. The village has become a great capital; Paris, Rome, and Stamboul are based upon the Pack-Donkey's Way.

The great capitals have no arteries ; they have only capillaries : further growth, therefore, implies sickness or death. In order to survive, their existence has for a long time been in the hands of surgeons who operate constantly.

The Romans were great legislators, great colonizers, great administrators. When they arrived at a place, at a cross roads or at a river bank, they took a

square and set out the plan of a rectilinear town, so that it should be clear and well-arranged, easy to police and to clean, a place in which you could find your way about and stroll with comfort—the working town or the pleasure town (Pompeii). The square plan was in conformity with the dignity of the Roman citizen.

But at home, in Rome itself, with their eyes turned towards the Empire, they allowed themselves to be stifled by the Pack-Donkey's Way. What an ironical situation ! The wealthy, however, went far from the chaos of the town and built their great and well-planned villas, such as Hadrian's villa.



ULM : THE ANCIENT STRATIFIED ENCAMPMENT

Six centuries later, everything remains the same !

They were, with Louis XIV, the only great town-planners of the West.

In the Middle Ages, overcome by the year 1000, men accepted the leading of the pack-donkey, and long generations endured it after. Louis XIV, after trying to tidy up the Louvre (i.e. the Colonnade), became disgusted and took bold measures : he built Versailles, where both town and chateau were created in every detail in a rectilinear and well-planned fashion ; the Observatoire, the Invalides and the Esplanade, the Tuilleries and the Champs Élysées, rose far from the chaos, outside the town ;—all these were ordered and rectilinear.

The overcrowding had been exorcised. Everything else followed, in a masterly way : the Champ de Mars, l'Etoile, the avenues de Neuilly, de Vincennes, de Fontainebleau, etc., for succeeding generations to exploit.

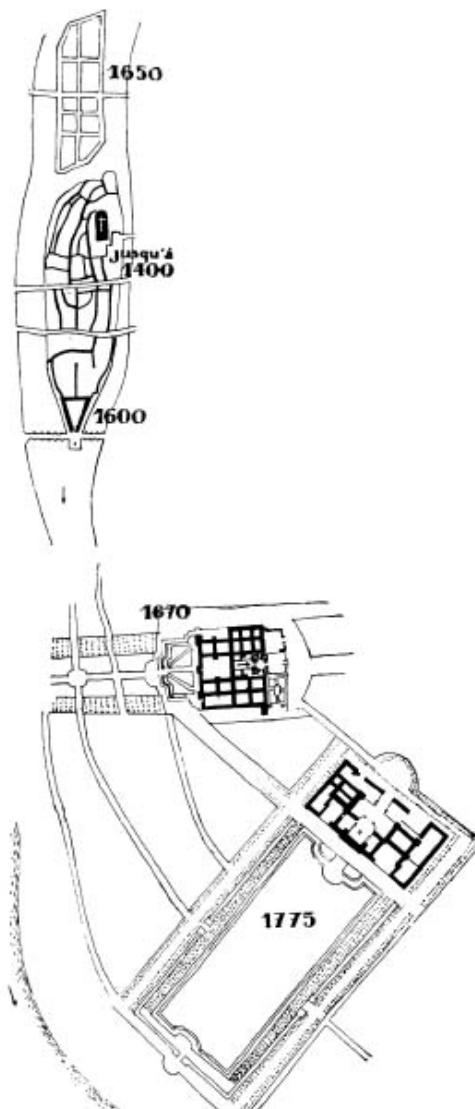
But imperceptibly, as a result of carelessness, weakness and anarchy, and by the system of “democratic” responsibilities, the old business of

overcrowding began again.

And as if that were not enough, people began to desire it; they have even created it in invoking the laws of beauty ! The Pack-Donkey's Way has been made into a religion.

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The movement arose in Germany as a result of a book by Camille Sitte on town-planning, a most wilful piece of work ; a glorification of the curved line and a specious demonstration of its unrivalled beauties. Proof of this was advanced by the example of all the beautiful towns of the Middle Ages ; the author confounded the picturesque with the conditions vital to the existence of a city. Quite recently whole quarters have been constructed in Germany based on this *aesthetic*. (For it was purely a question of aesthetics.)

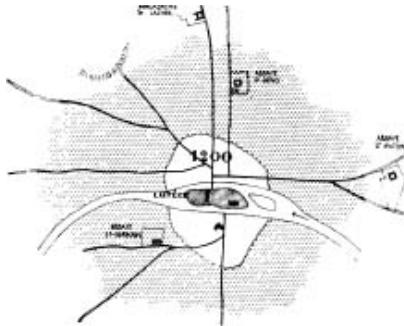


PARIS : THE CITÉ, THE PLACE DAUPHINE, L'ÎLE SAINT-LOUIS, THE INVALIDES,
L'ÉCOLE MILITAIRE

A significant diagram. These outline drawings, which are all to the same scale, show the trend towards order. The town is being policed, culture is manifesting itself and Man is able to create.

This was an appalling and paradoxical misconception in an age of motor-cars. "So much the better," said a great authority to me, one of those who direct and elaborate the plans for the extension of Paris ; "motors will be completely held up !"

But a modern city lives by the straight line, inevitably ; for the construction of buildings, sewers and tunnels, highways, pavements. The circulation of traffic demands the straight line ; it is the proper thing for the heart of a city. The curve is ruinous, difficult and dangerous ; it is a paralyzing thing.



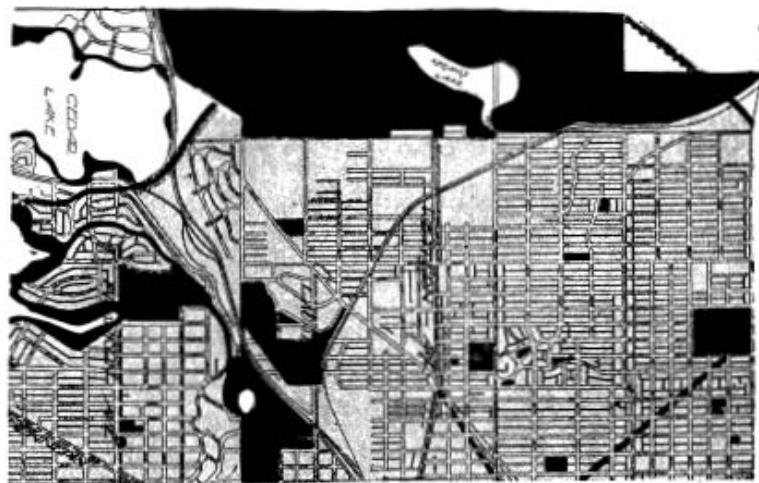
FIRST LUTETIA, THEN PARIS

The buildings still occupy the original sites, e.g. Notre-Dame, le Palais. The great provincial roads, from north, east and south, from Issy, from Clichy, from the maritime provinces, and from the temple of Mercury (Montmartre), all remain. Later, the Abbeys form definite landmarks. As far as town planning is concerned, there is nothing but chance and the taking the line of least resistance. Haussmann, later on, will open up and remodel the city to the best of his ability. But it still remains based on the "Pack-Donkey's Way."

The straight line enters into all human history, into all human aim, into every human act.

We must have the courage to view the rectilinear cities of America with admiration. If the aesthete has not so far done so, the moralist, on the contrary, may well find more food for reflection than at first appears.

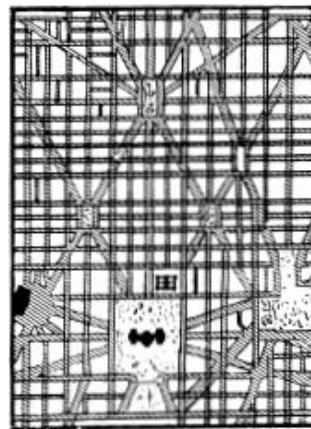
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MINNEAPOLIS (A FRAGMENT)

This gives us an indication of a new moral outlook in social life, and provides some clue to the mutual astonishment which Americans and Europeans can cause one

another to feel. Our epoch has now reached a stage in which the Old World must react to the new conditions and must consider the question of Town Planning.



WASHINGTON (A FRAGMENT)

A work of the mind. Here the victory is on the other side ; there were no more Pack-Donkey's Ways when this plan was designed, but instead there were Railways. The æsthetic problem still remains.

The winding road is the Pack-Donkey's Way, the straight road is man's way.

The winding road is the result of happy-go-lucky heedlessness, of looseness, lack of concentration and animality.

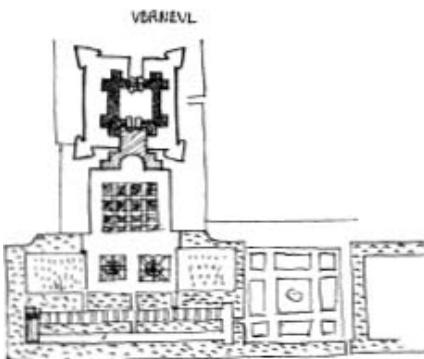
The straight road is a reaction, an action, a positive deed, the result of self-mastery. It is sane and noble.

A city is a centre of intense life and effort.

A heedless people, or society, or town, in which effort is relaxed and is not concentrated, quickly becomes dissipated, overcome and absorbed by a nation or a society that goes to work in a positive way and controls itself.

It is in this way that cities sink to nothing and that ruling classes are overthrown.

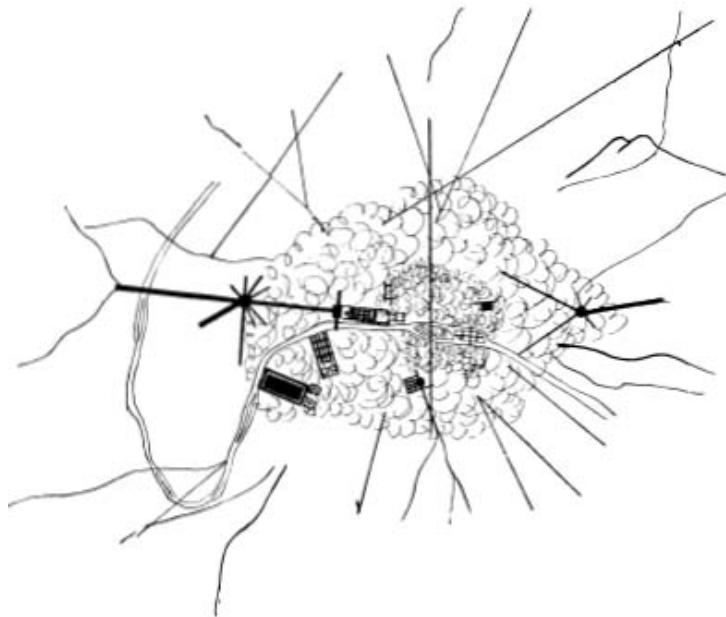
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ANDROUET DU CERCEAU (RENAISSANCE)

The Artist and the Planner have been at work

The right angle is the essential and sufficient implement of action, because it enables us to determine space with an absolute exactness.



PARIS TO-DAY

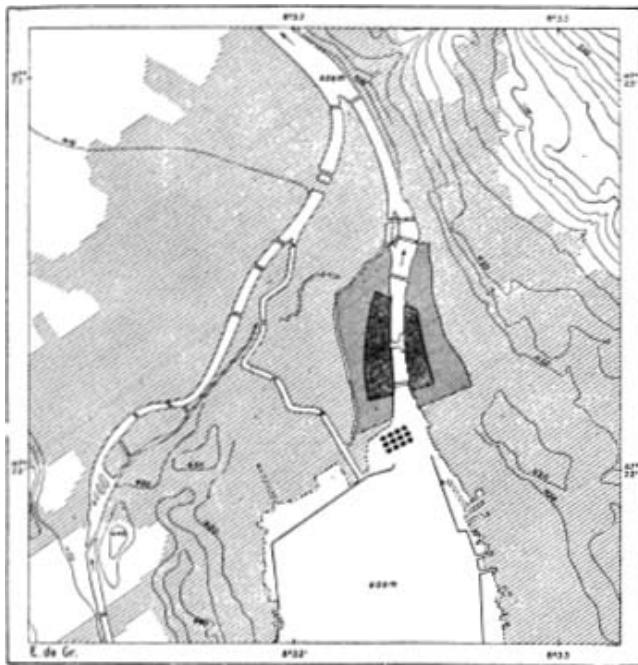
II ORDER

THE house, the street, the town, are points to which human energy is directed: they should be ordered, otherwise they counteract the fundamental principles round which we revolve ; if they are not ordered, they oppose themselves to us, they thwart us, as the nature all around us thwarts us, though we have striven with it, and with it begin each day a new struggle.

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If I appear to be trying to force an already open door (some people said this of my earlier book *Towards a New Architecture*), it is because in this case also (I am speaking of town planning) certain highly placed persons who occupy strategic points on the battle-field of ideas and progress have shut these very doors, inspired by a spirit of reaction and a misplaced sentimentalism which is both dangerous and criminal. By means of every kind of quibble they try to hide from themselves and from others the lessons taught us by past ages, and to escape from the fatality and inevitability of

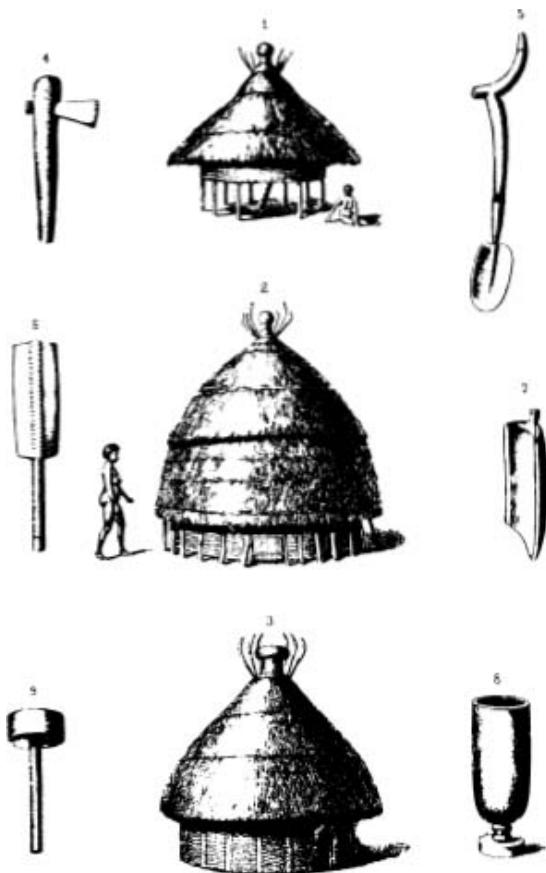
human affairs and events. Our *March towards order* they would like us to believe to be only a child's attempt to walk or the folly of narrow minds.¹



LAKE DWELLINGS (TURICUM)

I repeat that man, by reason of his very nature, practises order ; that his actions and his thoughts are dictated by the straight line and the right angle, that the straight line is instinctive in him and that his mind apprehends it as a lofty objective.

Man, created by the universe, is the sum of that universe, as far as he himself is concerned ; he proceeds according to its laws and believes he can read them ; he has formulated them and made of them a coherent scheme, a rational body of knowledge on which he can act, adapt and produce. This knowledge does not put him in opposition to the universe ; it puts him in harmony with it; he is therefore right to behave as he does, he could not act otherwise. What would happen if he were to invent a perfectly rational system in contradiction to the laws of nature, and tried to put his theoretic conceptions into practice in the world around him ? He would come to a full stop at the first step.

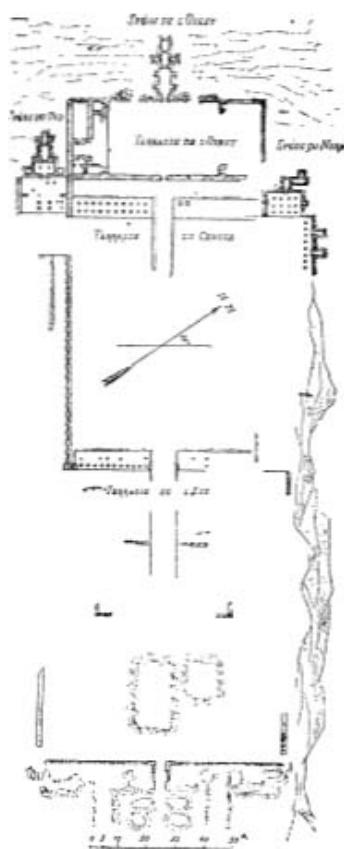


THE NATIVE HUT

Nature presents itself to us as a chaos ; the vault of the heavens, the shapes of lakes and seas, the outlines of hills. The actual scene which lies before our eyes, with its kaleidoscopic fragments and its vague distances, is a confusion. There is nothing there that resembles the objects with which we surround ourselves, and which we have created. Seen by us without reference to any other thing, the aspects of Nature seem purely accidental.

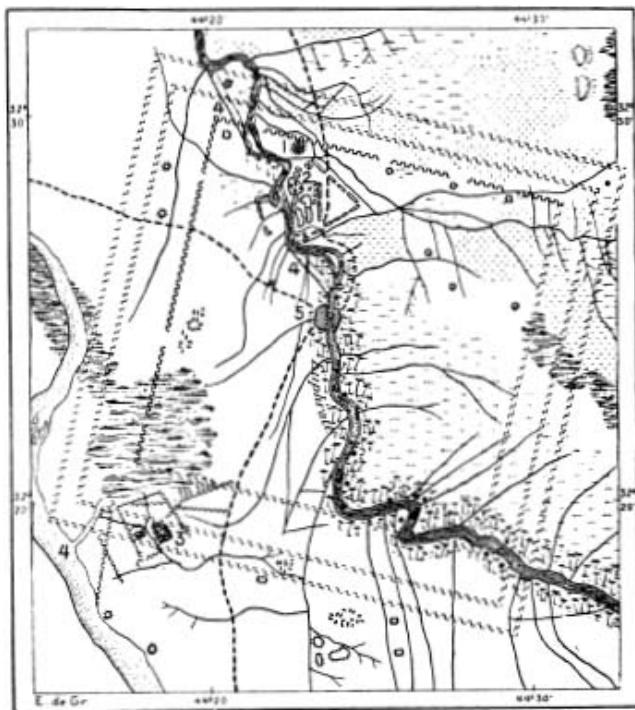


THE EGYPTIAN HOUSE



EGYPT

But the spirit which animates Nature is a spirit of order ; we come to *know* it. We differentiate between what we see and what we learn or know. Human toil is regulated by what we know. We therefore reject appearance and attach ourselves to the substance.



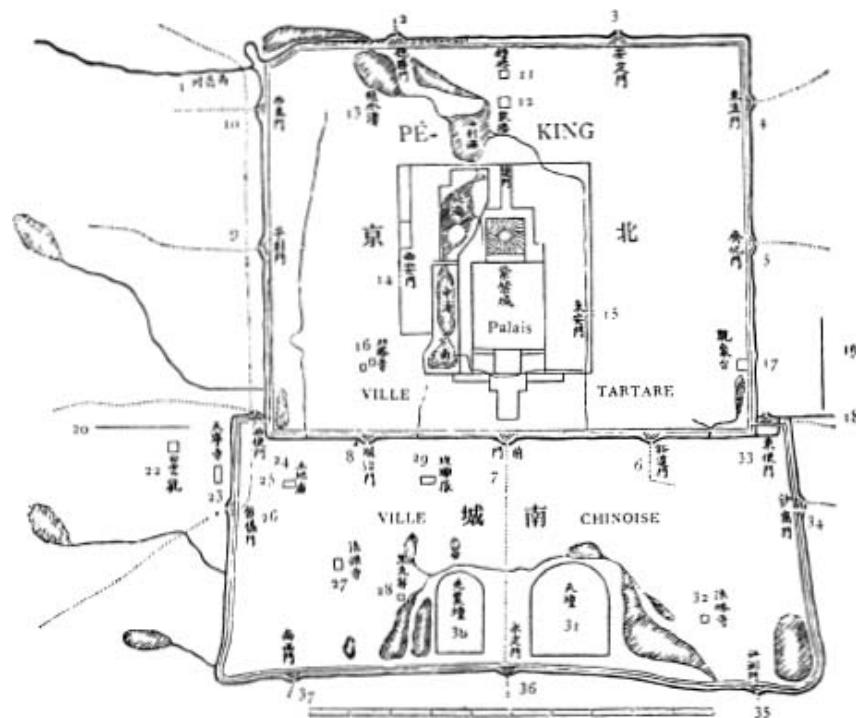
ANCIENT BABYLON

Dimension taken across Paris to the same scale.

For instance, I look at a man and he suggests to me a fragmentary and arbitrary shape ; my idea of the man is not, therefore, what I see at that moment, but what I know of him. If he turns his face to me I do not see his back ; if he stretches his hand out to me I do not see his fingers, nor his arm ; but I know what his back is like and that he has five fingers and two arms of a certain shape fitted for definite functions.

The laws of gravity seem to resolve for us the conflict of forces and to maintain the universe in equilibrium ; as a result of this we have the vertical. The horizon gives us the horizontal, the line of the transcendental plane of immobility. The vertical in conjunction with the horizontal gives us two right angles. There is only one vertical, one horizontal; they are two constants. The right angle is as it were the sum of the forces which keep the world in equilibrium. There is only one right angle ; but there is an infinitude of other

angles. The right angle, therefore, has superior rights over other angles ; it is unique and it is constant. In order to work, man has need of constants. Without them he could not put one foot before the other. The right angle is, it may be said, the essential and sufficient instrument of action because it enables us to determine space with an absolute exactness. The right angle is lawful, it is a part of our determinism, it is obligatory.



PLAN OF PEKIN

There, my friend the critic, is something to upset you. I will go further, I will ask you this question : Look about you—look beyond the seas and across the centuries—and tell me if man has ever acted on anything but the right angle, and does there exist anything round you but right angles ? This is a very necessary inquiry ; pursue it and at least one fundamental point of the discussion will be settled.

Placed in the midst of a chaotic nature, man for his own security creates and surrounds himself with a zone of protection in harmony with what he is and what he thinks ; he needs a retreat, a citadel in which he can feel secure ; he needs things whose existence he has himself determined. The things he makes for himself are a creation which contrasts all the more with his natural surroundings because its aim is closer to his mind, and further away and more detached from his body. We can say that the further human creations are removed from our immediate grasp, the more they tend to pure geometry ; a

violin or a chair, things which come into close contact with the body, are of a less pure geometry ; but a town is pure geometry. When man is free, his tendency is towards pure geometry. It is then that he achieves what we call order.



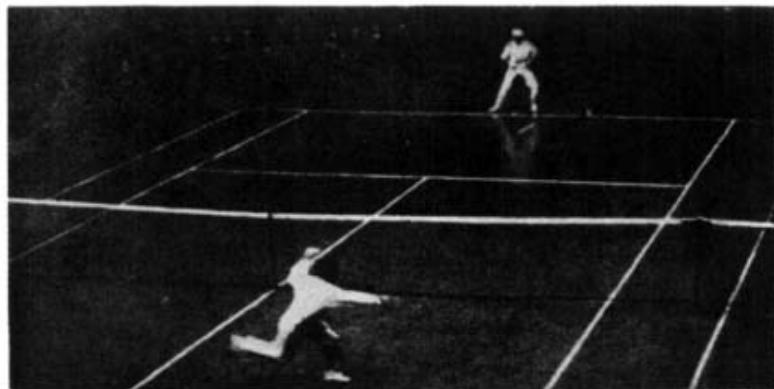
Order is indispensable to him, otherwise his actions would be without coherence and could lead nowhere. And to it he brings the aid of his idea of perfection. The more this order is an exact one, the more happy he is, the more secure he feels. In his mind he sets up the framework of constructions based on the order which is imposed upon him by his body, and so he creates. All the works that man has achieved are an "ordering." Seen from the sky, they appear on the earth below as geometric objects. And if, on the most precipitous mountain, we construct a road climbing to a pass, that also has a clear geometric function and its windings are an exact and precise thing amid the surrounding chaos.



As we move higher in the scale of creation, so we move towards a more perfect order ; the result is the work of art. What an immense distance in degree and understanding between the hut of the savage and the Parthenon ! If the creation is ordered, it lasts throughout time and remains an object of admiration in every mind. This is the work of art, the human creation which, while no longer bearing any of the evident aspects of Nature, yet submits to the same laws.

Here is another thing, my friend the critic, which will horrify you very much indeed. Your amiable liking for twisted and mis-shapen objects is hurt by this crystal which I am trying to make shine. You are not the only person who would like us to remain contented with essays in rustic bric-a-brac. In dealing with those who think as you do we must come back to town planning, for your and their negations would lead to the ruin of cities and districts and of entire countries ; for you would like to deprive us of our proper environment and annihilate us. Man undermines and hacks at Nature. He opposes himself to her, he fights with her, he digs himself in. A childish but magnificent effort !

Man has always done this, and he has built his houses and his towns. Human order, a geometrical thing, reigns in them, and has always done so ; it is the mark of great civilizations, and has left dazzling landmarks to be our pride and for our perpetual admonition.



Your passion for twisted streets and twisted roofs shows your weakness and your limitation. You have no right to use the newspapers in order to impose your own stupidity and pretence on the more or less ignorant average reader.

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The prehistoric lake village; the savage's hut; the Egyptian house and temple ; Babylon, the legend of which is a synonym for magnificence ; Pekin, that highly cultivated Chinese town ; all these demonstrate, on the one hand, the right angle and the straight line which inevitably enter into every human act (for man, who has created his implements and has brought them to great perfection, sets out in practice from the right angle and finishes ideally with the right angle) : on the other hand, they are evidence of a spirit working right up to the limits of its own force and grandeur, and expressing itself in the right angle, which is obviously, geometrically, a perfect thing and at the same time its own proof of this ; a marvellously perfect figure, unique, constant and pure ; capable of being applied to ideas of glory and victory or to the idea of complete purity, the germ of every religion.

Paris is a dangerous magma of human beings gathered from every quarter by conquest, growth and immigration ; she is the eternal gipsy encampment from all the world's great roads ; Paris is the seat of a power and the home of a spirit which could enlighten the world ; she digs and hacks through her undergrowth, and out of these evils she is tending towards an ordered system of straight lines and right angles ; this reorganization is necessary to her vitality, health and permanence; this clearing process is indispensable to the expression of her spirit, which is fundamentally limpid and beautiful.

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If you were to look down from the sky on the confused and intricate surface of the earth, it would be seen that human effort is identical throughout the ages and at every point. Temples, towns and houses are cells of identical aspect, and are made to the human scale. One might say that the human animal is like the bee, a constructor of geometrical cells.

Of course we may admit at once that in the last hundred years a sudden, chaotic and sweeping invasion, unforeseen and overwhelming, has descended upon the great city ; we have been caught up in this, with all its baffling consequences, with the result that we have stood still and done nothing. The resultant chaos has brought it about that the Great City, which should be a phenomenon of power and energy, is to-day a menacing disaster, since it is no longer governed by the principles of geometry.



THE NOMADS' CAMP



THE NOMAD HAS TAKEN ROOT

(and this is the sort of small town or village which so delights the town planner !)



WE ARE NO LONGER NOMADS : WE MUST BUILD TOWNS

¹ From this angle I have been denounced in the *Temps* by M. Vaillat as a man who wishes to lead his fellow-architects into mad paths, as a *German* if you please !

“... But I would reply,” he says, “to those architects, who may say that the time has come to submit to the logic of things, that the heart has its reasons which the mind cannot know. Satisfactions of an abstract nature are not, it may be, enough for our happiness; since we have in each of us an imperious need for illogicality, for fantasy and grace. The perfect town, the model village would bore us to tears....

“My insistence on this point is not unimportant, for since the last *Salon d’Automne*, the theories of M. Le Corbusier in regard to the City of the Future have made great progress; reviews, newspapers, and certain of my colleagues seem intoxicated by these seductive ideas which do not always, alas ! mean a seductive reality; they do not seem to distinguish, poor fellows (and this is a characteristic of life itself), the plan of an old *French* house with its elegance, and its subtle arrangement, from the extreme monotony of the *German* plan.” (*Le Temps*, 12 May, 1923.)

On principle, I generally avoid quoting an author for fear of giving a wrong impression. But this quotation very clearly shows what seems to be M. Vaillat’s doctrine and that of so many other people who are terrified by any simple statement of fact; that doctrine is “Life”; life with its many facets and unending variety; life, two-faced or four-faced, putrescent or healthy, limpid or muddy; the exact and the arbitrary, logic and illogicality, the good God and the good Devil; everything in confusion; pour it all in, stir well and serve hot and label the pot “Life” That should be enough to make any living being a many-sided character of infinite variety.

Louis XIV and the Louvre, Le Notre and the Tuileries, the Invalides and Versailles and the Champs Élysées, all the gardens “à la franchise” ; we now learn that these are all German and the work of Germans ! But in the first place it seems to me wrong to talk of either Germans or Tonkinese when it is a question of creations of the mind. And if M. Léandre Vaillat, who is on *Le Temps* (which is a serious paper) and in charge of the section devoted to town planning (which is a serious subject at this juncture), were better aware of the sources of his judgments he would realize that Latin history, and French history especially, are full of straight lines; and that curves have always belonged rather to Germany and the countries of the North (baroque, rococo, disjointed Gothic, up to and including the plans of modern towns). M. Léandre Vaillat and those with whom he shares his sympathies adore and put into practice in their town planning the curved line which has not been an ingredient in French architecture of the past, but which for twenty years has been a typical German manifestation. Thus *Le Temps* (this serious newspaper) gives its readers false information by the medium of M. Léandre Vaillat, who is a charming man but apt to be over-excited by petty architectural sensations.

In its sudden release, its superiority to mere will, its close harmony with the native gifts of a race, sensibility or feeling is a culmination and demands expression; it commands and leads men ; it determines their point of view and the deep meaning of things.