

IN THE CAUSE OF ARCHITECTURE

BY FRANK LLOYD WRIGHT

1. THE LOGIC OF THE PLAN

PLAN! There is something elemental in the word itself. A pregnant plan has logic—is the logic of the building squarely stated. Unless it is the plan for a foolish Fair.

A good plan is the beginning and the end, because every good plan is organic. That means that its development in all directions is inherent—inevitable.

Scientifically, artistically to foresee all is "to plan." There is more beauty in a fine ground plan than in almost any of its ultimate consequences.

In itself it will have the rhythms, masses and proportions of a good decoration if it is the organic plan for an organic building with individual style—consistent with materials.

All is there seen—purpose, materials, method, character, style. The plan? The prophetic soul of the building—a building that can live only because of the prophecy that is the plan. But it is a map, a chart, a mere diagram, a mathematical projection before the fact and, as we all have occasion to know, accessory to infinite crimes.

To judge the architect one need only look at his ground plan. He is master then and there, or never. Were all elevations of the genuine buildings of the world lost and the ground plans saved, each building would construct itself again. Because before the plan is a plan it is a concept in some creative mind. It is, after all, only a purposeful record of that dream which saw the destined building living in its appointed place. A dream—but precise and practical, the record to be read by the like-minded.

The original plan may be thrown away

as the work proceeds—probably most of those for the most wonderful buildings in the world were, because the concept grows and matures during realization, if the master-mind is continually with the work. But that plan had, first, to be made. Ultimately it should be corrected and recorded.

But to throw the plans away is a luxury ill afforded by the organizations of our modern method. It has ruined owners and architects and enriched numberless contractors. Therefore conceive the building in the imagination, not on paper but in the mind, thoroughly—before touching paper. Let it live there—gradually taking more definite form before committing it to the draughting board. When the thing lives for you—start to plan it with tools. Not before. To draw during conception or "sketch," as we say, experimenting with practical adjustments to scale, is well enough if the concept is clear enough to be firmly held. It is best to cultivate the imagination to construct and complete the building before working upon it with T square and triangle. Working on it with triangle and T square should modify or extend or intensify or test the conception—complete the harmonious adjustment of its parts. But if the original concept is lost as the drawing proceeds, throw all away and begin afresh. To throw away a concept entirely to make way for a fresh one—that is a faculty of the mind not easily cultivated. Few have that capacity. It is perhaps a gift—but may be attained by practice. What I am trying to express is that the plan must start as a truly creative matter and mature as such. All is won or lost before anything more tangible begins

The several factors most important in making the plans—after general purpose or scheme or "project" are,

2nd—Materials.

3rd—Building methods.

4th—Scale.

5th—Articulation.

6th—Expression or Style.

In the matter of scale, the human being is the logical norm because buildings are to be humanly inhabited and should be related to human proportions not only comfortably but agreeably. Human beings should look as well in the building or of it as flowers do.

People should belong to the building just as it should belong to them. This scale or unit-of-size of the various parts varies with the specific purpose of the building and the materials used to build it. The only sure way to hold all to scale is to adopt a unit-system, unit-lines crossing the paper both ways, spaced as pre-determined, say 4'-0" on centers—or 2'-8" or whatever seems to yield the proper scale for the proposed purpose. Divisions in spacing are thus brought into a certain texture in the result; ordered scale in detail is sure to follow.

A certain *standardization* is established here at the beginning, like the warp in the oriental rug. It has other and economic values in construction. I have found this valuable in practice even in small houses. Experience is needed to fix upon the proper size of the unit for any particular building. Trained imagination is necessary to differentiate or syncopate or emphasize, to weave or play upon it consistently.

Scale is really proportion. Who can teach proportion? Without a sense of proportion, no one should attempt to build. This gift of sense must be the diploma Nature gave to the architect.

Let the architect cling, always, to the normal human figure for his scale and he cannot go so far wrong as Michelangelo did in St. Peter's at Rome. St. Peter's is invariably disappointing as a great building, for not

until the eye deliberately catches a human figure for purposes of comparison does one realize that the building is vast. All the details are likewise huge and the sense of grandeur it might have if the great masses were qualified by details kept to human scale—this effect of grandeur—is lost in the degradation of the human figure. A strange error for a sculptor to make.

The safest practice in proportion is not to attempt to allow for "perspective", stilting domes as he did, changing pitches of roofs as many do, and modifying natural lines and masses to meet certain views from certain vantage points as the Greeks are said to have done, but to make the constitution of the thing right in itself. Let the incidental perspectives fall when and how they will. Trust nature to give proper values to a proper whole. The modifications she may make are better than any other. There is something radically wrong with a scheme that requires distortion to appear correct.

In the matter of materials. These also affect scale. The logical material under the circumstances is the most natural material for the purpose. It is usually the most beautiful—and it is obvious that sticks will not space the same as stones nor allow the same proportions as steel. Nor will the spacing adjustable to these be natural to made-blocks or to slabs or to a plastic modeling of form.

Sticks of wood will have their own natural volume and spacing determined by standards of use and manufacture and the nature of both.

A wood plan is slender: light in texture, narrower spacing.

A stone or brick plan is heavy: black in masses, wider in spacing.

Combination of materials: lightness combined with massiveness.

A cast-block building: such massing as is felt to be adequate to the sense of block and box and slab; more freedom in spacing.

The purely or physically plastic structure: center line of thin webbing with a flesh-

covering on either side; unit-system may be abandoned.

Then there are the double-wall constructions requiring great skill in spacing so that the interior shell will work simply with the outer shell. And there are as many others as there are combinations of all these.

But the more simple the materials used—the more the building tends toward a mono-material building—the more nearly will "perfect style" reward an organic plan and ease of execution economize results. The more logical will the whole become.

A wood plan is seen in the plan for the Coonley house at Riverside, see page 52, and in the plan for "Dior house".

A cast-block and slab building: the plan for Unity Temple at Oak Park, (page 54).

Brick plans: the plan for the D. D. Martin residence at Buffalo, (page 53) and the Ullman house at Oak Park, Illinois, (page 55).

A steel-and-glass plan for a skyscraper, concrete supports and floor slabs: this plan will be used later in this series to illustrate another article.

The purely "plastic" structure may be seen in the "Einstein Tower" by Mendelsohn and buildings by European Modernists.

A double-wall construction, in this case of pre-cast blocks, is seen in the Ennis house at Hollywood, (page 56).

A thin concrete slab-structure: the merchandise building at Los Angeles.

In the matter of building methods. These too are meantime shaping the plan. In the

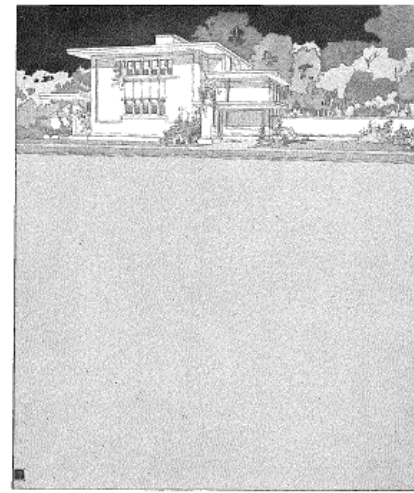
Coonley house—the 4'-0" unit works with 16" centers as established in carpenter practice for the length of lath, the economical spacing of studs and nailing-bearings, standard lumber lengths.

In Unity Temple—the only limit was the mass of concrete that could withstand the violent changes of climate and remain related to human scale and easy construction. The box and blocks, however, determine the shape of every feature and every detail of the features, as it was all cast in "boxes." So a unit suitable for timber construction was adopted as the false-work in which it was cast was made of lumber. Multiples of 16", syncopated, was the scale adopted.

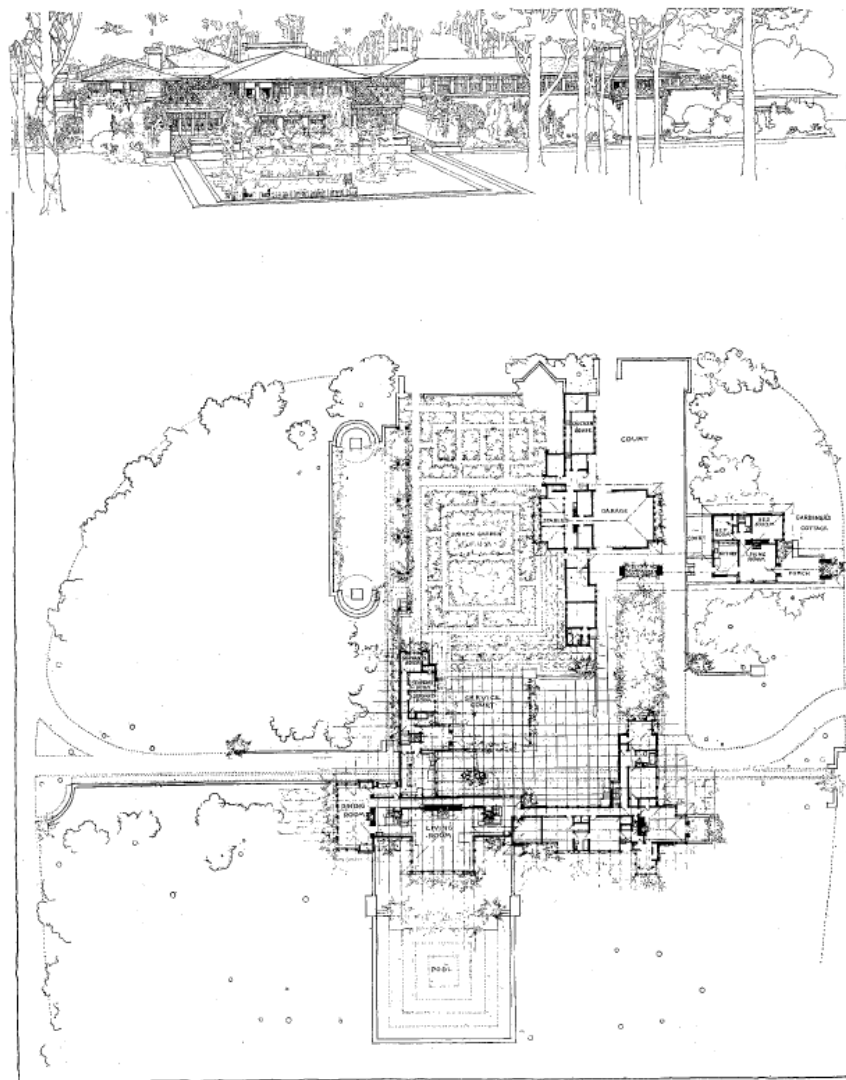
In the Martin house, brick was used. Brick lends itself to articulation in plan and is an easy material to use architecturally. Bricks naturally make corners and the corners are easily used for play of light and shade. The Martin house is an organized brick-pier building. It is when assembling groups of piers in rhythmical relation to the whole that brick comes out best according to its nature. A 7'-9" unit reduced by minor

mullions to 3'-9", was used, in the horizontal only. There are other views of brick as legitimate as this one, to be used according to the individual "taste" of the designer. The broken masses of textured walls, for instance.

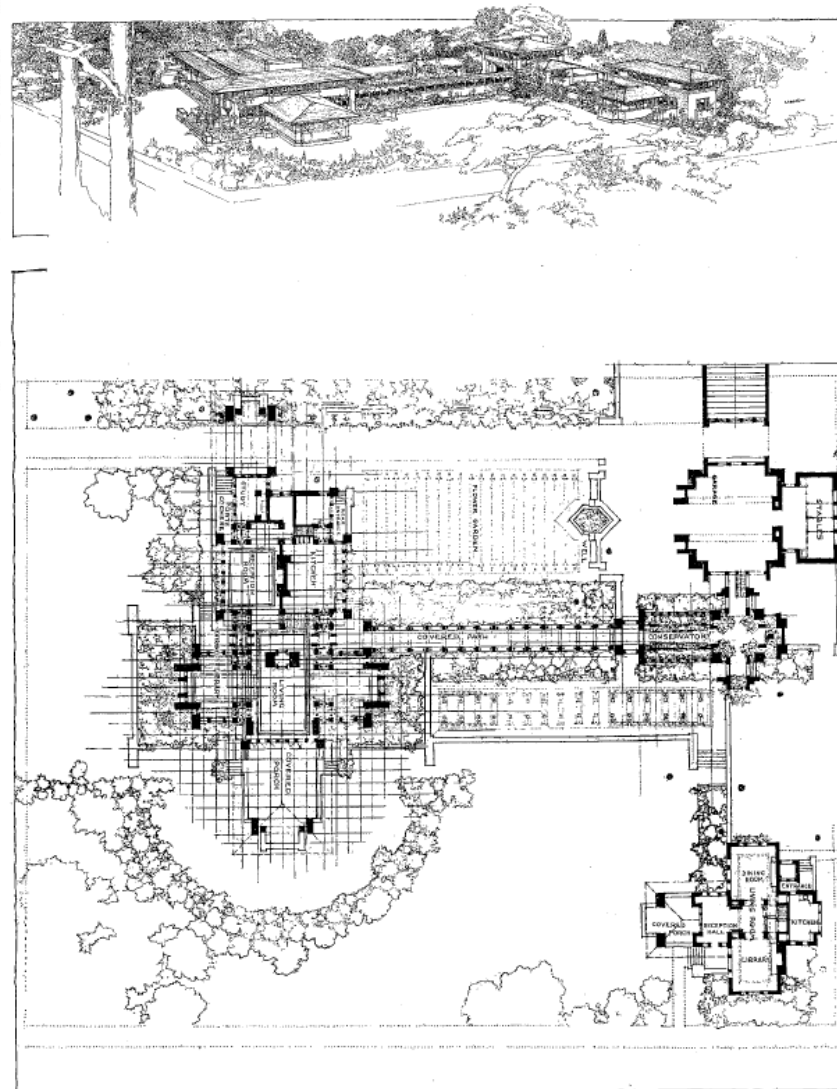
In the steel-and-glass building there are no walls. The method yields best to suspended screens, shop-fabricated. A mechan-



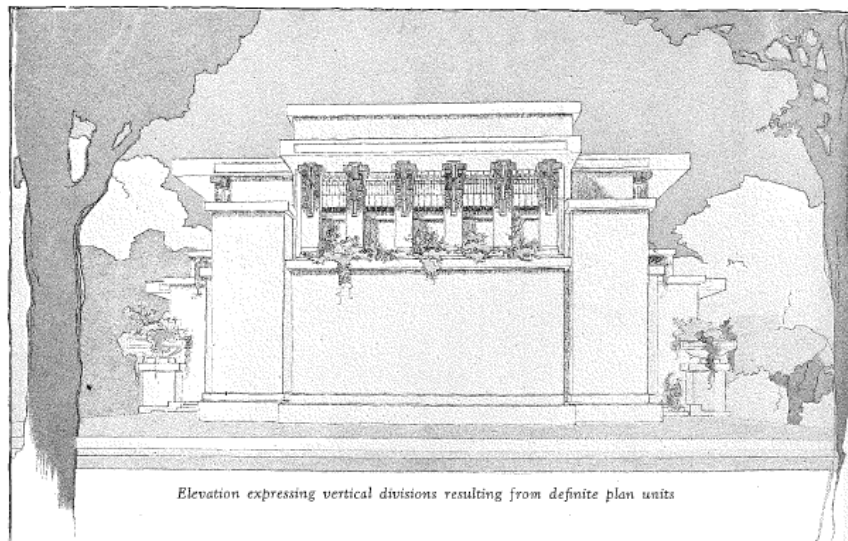
D. 101 HOUSE, STANDARD WOODEN CONSTRUCTION WITH 2'-0" UNIT SPACING ADAPTED TO ECONOMIZE LUMBER



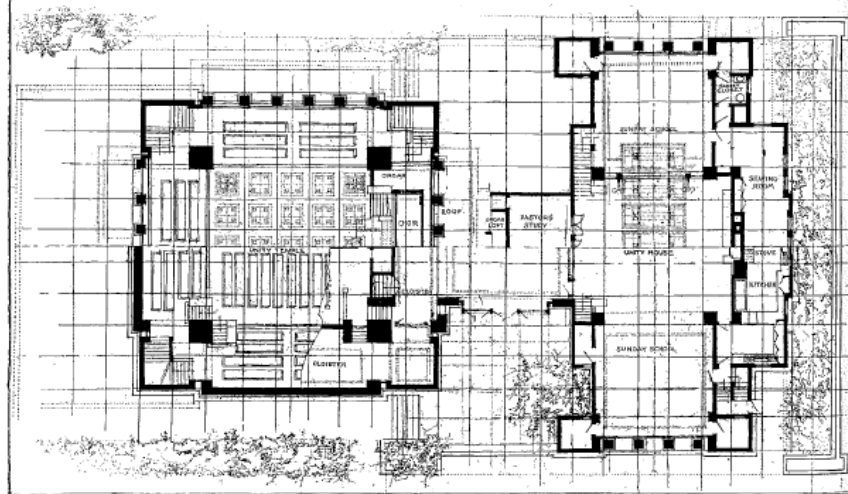
PLAN AND PERSPECTIVE, AVERY COONLEY HOUSE, RIVERSIDE, ILLINOIS
FRANK LLOYD WRIGHT, ARCHITECT
ILLUSTRATING THE WOOD PLAN



PLAN AND PERSPECTIVE, D. D. MARTIN HOUSE, BUFFALO, N. Y.
FRANK LLOYD WRIGHT, ARCHITECT
BRICK-PIER PLAN, 4'-6" UNITS



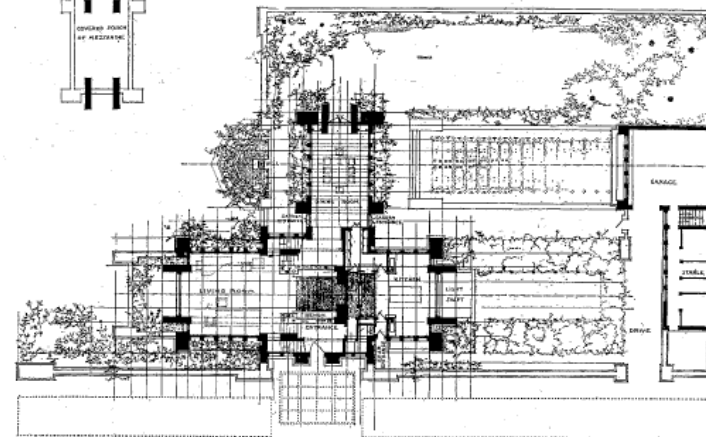
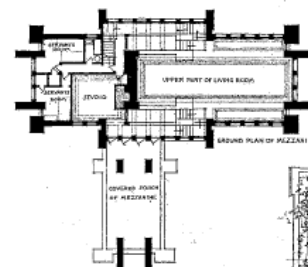
Elevation expressing vertical divisions resulting from definite plan units



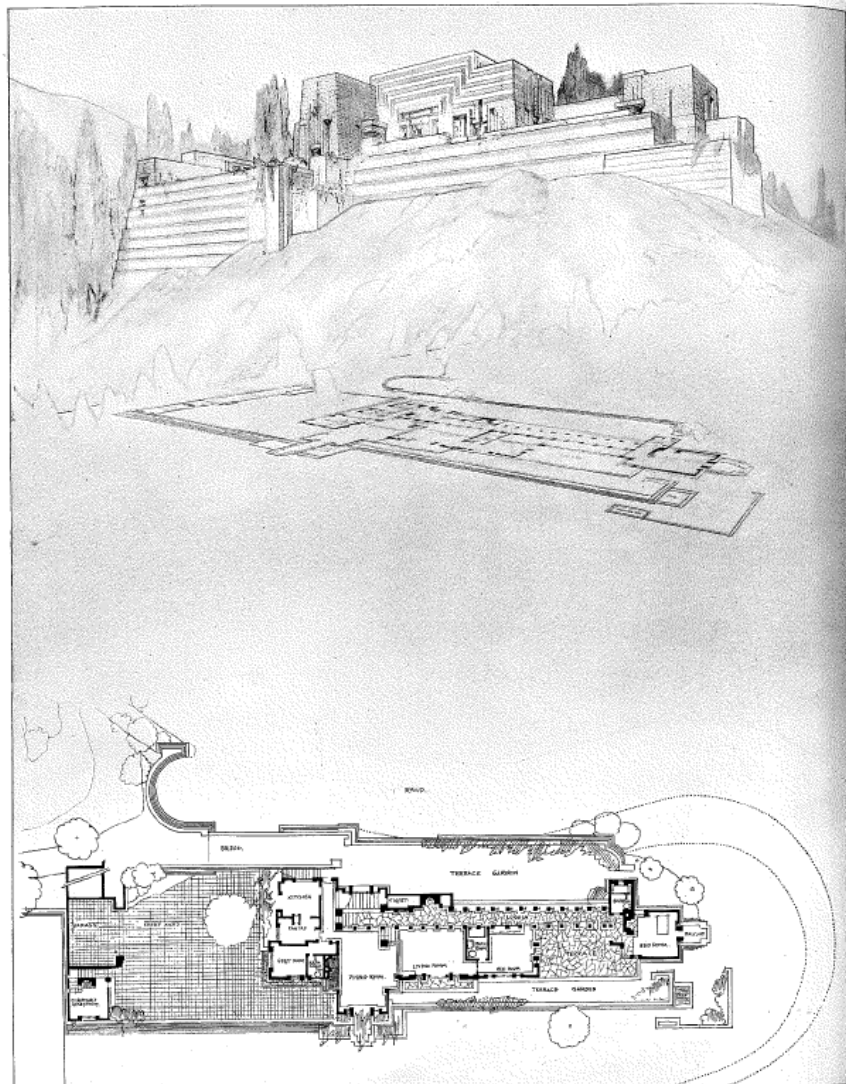
PLAN AND ELEVATION, UNITY TEMPLE, OAK PARK, ILLINOIS
FRANK LLOYD WRIGHT, ARCHITECT
PLAN ILLUSTRATING HORIZONTAL DIVISIONS, 7'-0"



*Illustrating plan division and vertical parts
determined by definite horizontal units*



PLANS AND PERSPECTIVE, ULLMAN HOUSE, OAK PARK, ILLINOIS
FRANK LLOYD WRIGHT, ARCHITECT
BRICK-PIER PLAN, 4'-6" UNITS



FLOOR PLAN, PLOT PLAN AND PERSPECTIVE, ENNIS HOUSE,
HOLLYWOOD, CALIFORNIA

FRANK LLOYD WRIGHT, ARCHITECT

ILLUSTRATING ARTICULATION EMPHASIZED BY TEXTURE

ized fabric enters here to give the form and style that is architecture. The structural supports and floor-slabs in this case happen to be concrete. They could be protected steel as well. Planned on a 4'-0" unit, emphasis on alternate verticals. No emphasis on horizontals.

In the pre-cast-block building, the method of building wholly determines the form and style. This is a mono-material structure planned on multiples of "16" inches square both horizontal and vertical. No emphasis.

The slab-building is an expression of another method. Cast-slabs, set sidewise and lengthwise, and flatwise, making everything, as may be seen in the result. Planned on multiples of 7'-0".

Concerning articulation. The Ennis house will serve to illustrate the principle which, once grasped, is simple.

In the building, each separate portion of the building devoted to a special purpose asserts itself as an individual factor in the whole.

The dining-room associated with terraces is one mass. The living-room with bedroom attached, another mass standing at the center on a terrace of its own—the dominating feature of the group.

Mr. Ennis's bedroom, semi-detached and used as a study or office, is another and terminal mass.

At the rear is the kitchen unit, a subordinate mass. All are connected by a gallery passing along the group at the rear. Finally the terrace-wall ends in a detached mass to the rear of the lot—the garage and chauffeur's quarters.

A little study will show how each separate room makes its own characteristic contribution to the whole mass.

The completed whole crowns the end of a high ridge in Hollywood and is a pre-cast slab-block building woven together with steel.

These articulations are as obvious in the plan as in the perspective. The Coonley house is similarly articulate.

Articulate buildings of this type have their parallel in the music of Bach particularly, but in any of the true form-masters in music.

It may be readily seen that in this particular direction lies infinite variety in expression. The sense of it is fundamental in any architectural release.

In the matter of expression and style.

As a matter of logic in the plan it is easy to see there can be none except as the result of scale, materials and building method. But with all that properly set, there is the important human equation at work in every move that is made. The architect weaves into it all his sense of the whole. He articulates—emphasizes what he loves.

No matter how technically faithful his logic may have been to his scale and materials and method—over and above all that, living in the atmosphere created by the orchestration of those matters, hovers the indefinable quality of style. Style emanating from the form, as seen by the man himself. And while it speaks to you of all those important matters, it leaves you imbued by dignity, grace, repose, gaiety, strength, severity, delicacy and of rhythmical order, in a musical sense, as the master wills—just as music does. Usually you hear music as you work. But not necessarily.

So every true building is of the quality of some man's soul, his sense of harmony and "fitness," which is another kind of harmony—more or less manifest in the fallible human process.

And his building will nobly stand, belonging to its site—breathing this message to the spirit quite naturally, so long as his work was well done or the course of human events does not inundate or human ignorance willfully destroy his building.