THE ARCHITECTURAL RECORD.

In the CAUSE OF ARCHITECTURE

By Frank Lloyd Wright

II-STANDARDIZATION, THE SOUL OF THE MACHINE

JOHN RUSKIN AND WILLIAM MORRIS turned away from the machine and all it represented in modern art and craft. They saw the deadly threat it was to all they loved as such—and eventually turned again to fight it, to the death—their death. They are memories now. Pleasant ones. They did not succeed in delaying destruction nor in constructing anything. They did, however, remind us of what we were losing by using the machine or, as they might have said, letting the machine use us.

Repetition carried beyond a certain point has always taken the life of anything addressed to the living spirit.

Monotony kills.

Human feeling loves the vigor of spontaneity, freshness, and the charm of the unexpected. In other words, it loves life and dreads death.

The Machine Ruskin and Morris believed to be the enemy of all life. It was and is so still, but only because the artist has shirked it as a tool while he damned it; until now he has been damned by it.

Standardization as a principle is at work in all things with greater activity than ever before.

It is the most basic element in civilization. To a degree it is civilization itself.

An oriental rug, lustrous, rich with color and light, gleaming with all the brilliant pattern opulent oriental imagination conceived, has a very definite basis of standardization in warp and woof. In the methodical stitches regularly taken with strands of woolen yarn, upon that regular basis of cotton strings, stretched tight, lies the primitive principle of standardization. Serving the imagination full well.

Standardization here serves the spirit well—its mechanics disappear in the glowing fabric of the mind—the poetic

JOHN RUSKIN AND WILLIAM MORRIS feeling of the artist weaver with love of

Standardisation should have the same place in the fabric we are weaving which we call civilization—as it has in that more simple fabrication of the carpet. And the creative artist-mind must put it into the larger more comprehensive fabric.

How?

Not so simple.

This principle of standardization has now as its tool or body—the Machine. An ideal tool compared to which all that has gone before is as nothing.

Probably Gutenberg's invention of movable types was the first great advent of the machine in any sweeping form.

The blessing of that invention is obvious as is the curse that came with it.

The body of the book became volatile, almost infinite—and mind failed to keep up with it. Trash inundated the civilized world and streams of printed pages became wrapping paper to fill packing cases, light fires and blow unheeded about the gutters of the world.

A deluge. And yet the book lives. There are a thousand writers for one in earlier eras and mostly worth onethousandth part as much. "Shifting type" was the principle of standardization at work. The machine is the "press," that we have to-day serving it. What happened here in printing has happened to nearly everything in our lives. Happened or is happening or soon to happen with similar but more disastrous results; quantity at expense of quality-with always the blessing that comes from it, making available to the poor and needy a cheap or debased form of what was once rare and precious. I am speaking of fine art from the architect's standpoint.

So we see in the Machine the forerunner and ideal agent of Usonian Democracy such as it is. A Democracy sentimental and unsound, but that is another and longer story.

We see in this old force a new agency hard to control. A force once released into the world—never to be stopped until every thing in it once precious and valuable for its own sake in its intimate relation to former good or great life has been fed to the dogs, or swine, speaking bitterly. But meantime raising the opportunities for "having things" the world over with a chance of turning the dogs, or swine, into more human beings.

And, honestly let it be said, of putting all human beings perhaps at the mercy

of swine and dogs.

This is where the creative artist steps in: to bring new life of the mind to this potent agency: new understanding that will make living more joyous and genuine by abolishing the makeshift, showing up imitation for the base thing it is—saving us from this inglorious rampage and rapine upon antiquity. There is no artist conscience, it seems, in all this. The artist is like a hungry orphan turned loose in a bake shop. The creative artist is not in it.

That ancient honor of the race, creative art, can not be dead. It needs only awakening. No wonder it lies all but moribund floating in the "deluge" at the mercy of the current of ubiquity, rushing toward—well, let us hope, toward the great peace of the great ocean.

This principle of standardization then, is no detriment to art or artist. It has always existed. And like any principle has its uses and its abuses.

How foolish therefore to take a prevalent abuse of any thing for the thing itself?

An artist is sentient. He is never fooled by brains or science or economics. He knows by feeling—say instinct—right or living, from wrong or dead.

He may not, however, have the technique to make his "knowing" effective and so remain inarticulate. But it is his duty to know, for his technique is what makes him serviceable to his fellows as artist. Acquiring the technique of the Machine as the tool of standardization.

mastering the nature of both, is the only thing now that will make him the living force necessary to salvage the flotsam and jetsam of the "deluge," or, let it all go and begin over again.

Begin another era: the modern era of the machine with all it implies, economically making life more joyous and abundant as a matter of quality—as well as quantity.

Standardization apprehended as a principle of order has the danger of monot-

ony in application.

Standardization can be murderer or beneficent factor as the life in the thing standardized is kept by imagination or destroyed by the lack of it.

By the "life" in the thing I mean the integrity of the thing (we are talking of the things of art and craft) in the sense of the third dimension—as I have

already tried to explain it.

The "life" in the thing is that quality of it or in it which makes it perfectly natural—of course that means organic. And that simply means true to what made it, as it was made, and for what it was made. That would be the body of the "thing." A matter of good sense.

New opportunities have come, not to hand but to the mind.

This may not seem specific. But it is a point of view necessary to the understanding of the experiences which follow. For in that spirit the experiments were made and the results judged as good or bad that will appear as I write.

The first study of importance in this connection is of course, the nature of materials.

It is impossible to do anything intelligently to or with something you know nothing about. To know intimately the nature of wood, paper, glass, sheet metal, terra cotta, cement, steel, cast iron, wrought iron, concrete, is essential to knowing how to use the tools available to make use of those materials, sensibly or artfully.

So let us glance at these more staple materials. We will find certain properties in all, that standardization will serve well; and other properties, too, that

The principle of standardization, applied, may be said to be a matter of knowing by a study of the nature of whatever we apply it to-when to quit.

Let us begin with a short study of 'ate and destroy it. wood.

What is wood?

A workable, fibrous material got from trees in almost any length, certain breadths and thicknesses, now standardized. It may be had in almost any color or texture, as trees are growing in great variety all over the world. Different woods vary in characteristics, made known by use in all ages. To it man has had recourse for nearly every need. He has made of it a part, or entirely, in one form or another, nearly everything he uses. It may be polished, or painted, or stained, to bring out its grain which is the great characteristic of its beauty. It may be sawed or cut to bring this beauty to the surface in various ways. It was once laborious to hand-saw and cut and smooth it. Machines now do all that better. Machines cut veneers so cheaply and so thin and so wide they may be applied like wall paper to broad surfaces. Machines cut rotary veneers from the curling surface of the log in any width, unwinding the surface with a cut of the grain unknown before. Really, this property of wood has been liberated and made available in beautiful sheets, so beautiful in surface that it is folly to mold it, and join it, and panel it painfully any more as before.

ways now even more cheaply than in laborious joinery with its tendency to go to pieces because it was all in pieces.

Much more could be said. Here is enough to indicate new possibilities of design in machined wood.

Inlaid lines are characteristic too,slender inlaid decorative purflings or battens between wide, plain, broad, etc., etc.

Plastic treatment, now, you see, instead of constructed ones or "structuralities."

There are infinite possibilities here. And in making wood into furniture, clean or Pseudo-Classic. straightline effects, as delicate as may be, are characteristic of the machine. A lim-

standardization, carried too far, will kill. itation that makes the nature of wood very beautiful as it appears within these limitations of form.

> Wood carving usually did violence to the nature of wood. It tended to mutil-

> The machine can inlay, fret and bring up the beauty of wood in plastic treatments more true to the nature of the wood. Why not then, forget ancient models that are especially made to suit freedom of the hand? The nature of wood was overwrought and lost in three out of five of such models anyway. But here the beauty that is wood lives above standardization, if the architect sees it and uses it in this new "plastic" sense.

Let us take glass.

Glass was once a delightful substance in itself. It is now chiefly a perfect "clarity" or nothing very delightful.

Such clearness in polished glass as we have is new in the world. We may have great polished surfaces for reflections, leaving openings as though nothing closed them-limpid surfaces playing the same part in all interiors that water plays in the landscape. We have lost a substance but found a freedom infinitely precious to the designer of buildings. This is the mechanical plate glass of the machine. New opportunities here. Imagine a few.

There is electro glazing to introduce the element of pattern into the clear glass in delicate straight lines in bewildering delicacy and variety.

The mind must enter now to take the It may be used in broad simple plastic place of what, in the antique, was adorable as a natural quality of the glass itself. The scene has shifted, but we are still better off, in glass.

We can make colored glass for the painter to use as pigment in his hand, but it is now a lesser interest. We have limpid surfaces, true reflections and unobstructed vision due to the machine.

And there is steel.* A new thing under the sun. And the most significant material of this age. The one that has done most harm to the established order-

[&]quot;Steel is the next essay in this series.