



1 / THE UNFOLDING WHICH PRODUCES INNER LIGHT

Color is a necessary part of living structure and a necessary part of the harmonious adaptation in the world. It goes to the root of life and wholeness. Often, in conceiving a building, before I even have the outline of the volume clear, I look, in my mind, for a vision of the color. The color, in a holistic way, appears as a product of the forces on the site. One sees what kind of overall color structure may be most harmonious in that place. One can feel the harmony. One gets an idea, a glimpse, of the quality of color, hence the quality of structure which will help that part of the world, fit into it, so that it becomes more whole, more dazzling, in a quiet and unassuming way.

And, once the building exists, months or years later, the importance of light continues. Even the paint on the building, on the walls, on the furniture, on the garden fence, this is all essential.

In Book 4, I shall go to great lengths to describe something I call “inner light” in the color of a situation (see chapter 7, pages 157-240). In what follows here, I shall briefly describe what it is like — as a practical matter — trying to *get* this inner light to appear in a building.

Imagine the process in which we visualize color in some place, and then try, step by step, to create the inner light we feel. In effect, we follow a process very similar to the general scheme for a living process I have already laid out in Book 2 (chapter 7). But now, at each moment, instead of focusing mentally on “wholeness” or “life” and intensifying wholeness or life at each moment, we concentrate on the idea of *light*: that is to say, on the way that color illuminates and enhances the structure of a given wholeness, in a given place. I concentrate my attention on the need to increase the light in the field, step-by-step, continuously.

In doing this I am consciously trying, at each moment, to make the thing before me pen-

etrate more and more deeply into the realm of light. I am trying to reach the ground described in Book 4, THE LUMINOUS GROUND. I do not need to be ashamed, to worry that this is too high-flown as an aim. It is a simple aim, though very difficult. Trying to reach it, it is useful for me to be humble and to recognize my inability. Then the task becomes more straightforward, not so pretentious, more likely to work. Again, the steps are governed by the idea that the color must be structure-preserving and structure-enhancing for the surroundings. This will determine the overall choice of color, the combinations of color, and the particular shades that we mix.

In the following discussion with Gernot Mittersteiner, my apprentice from Austria who worked with me in 1984, we are talking about the process of finding the right colors for a building in Martinez, which we were painting while he was working with me.

Gernot How have you come to the conclusion that color “studies” on paper are not helpful enough?

Chris A matter of experience. A sketch can work very successfully as a way to study the *general* idea of color, the overall feeling projected by a particular group of colors in a particular arrangement. Examples of such sketches are given on page 618, on page 633. But the *actual* colors that must then be put on the real building, even when inspired by such a sketch, even when aiming at the color feeling that a chosen sketch reveals, *can only be worked out in the place itself, under the influence of nearby and surrounding color and light*. And when colors are done this way, they will *always* come out different from the colors in the sketch.

Gernot Why is that? What is it that you actually do?

Chris Well, throughout, I try — hope — to find a combination of colors which has “inner light” . . . which enhances the structure of the



The yellow of the grass—dry, burning—and the light white-blue of the sky. This is a picture of the Martinez house while under construction. You can almost see the color, staring at you, inspiring you, explaining itself to your feeling, even in this photograph. How much more vivid it was, when we were standing there. Christopher Alexander, 1984.

building . . . and which increases the NOT-SEPARATENESS of the building, its unity with its surroundings. All this hinges to an extreme degree on the color interactions which actually happen on the site itself.

What we do on paper, working out the color combinations, can help us get a rough idea of what might work. But it falls short in two ways. First, it does not adequately recognize the way that real colors fit into the landscape of an actual place. Second, the colors which are formed on a drawing or painting are never like the colors which we actually put on the building . . . because the areas and intensities are so different.

Gernot So what do you do to work out the colors?

Chris First, I try to see it in my mind's eye while I am in the actual place. I try to get an inkling of the general feeling of color which will work. In Martinez, the main things about that place, which is rather hot, were the yellow of the grass—dry, burning—and the light white-blue of the sky. I looked at it, I sat there, then

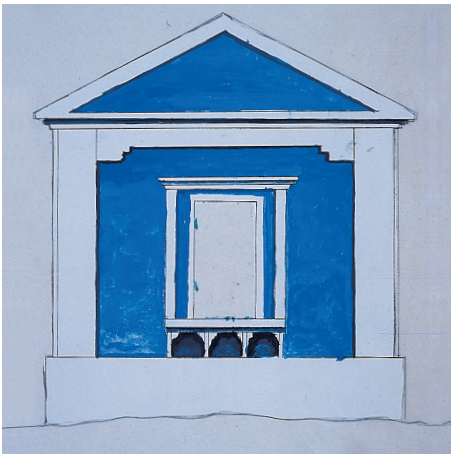
closed my eyes trying to imagine a color in the building which would create an inner light in that place, with that dry yellow grass and with that light blue sky. Slowly I began to see a deeper, greenish blue, rather strong, with the blue tones more pronounced than the sky, but also somehow softer.

Gernot But you don't put this on paper.

Chris No, I don't usually test it on paper, only occasionally, because a drawing or a painting of a



Mixing and testing colors on the Martinez site to get the right wall color.



Two early painted studies for the Martinez house. On the basis of these sketches, it was clear to us that the left approach, not the right, was the more promising and we went forward on that basis. In the actual colors that we used on site, however, the colors changed considerably. The blue became less primary, more gray, more luminous and more subdued. And the white columns and beam were painted a pale, pale green, and on slightly different elements. A photograph on page 458 shows this part of the building as it was painted when built.

building only gives a very rough idea of the real (and more complex) color phenomenon. Instead, I keep it in my mind. And then I go to the site and simply start mixing colors and painting them on test areas of the building until I see it come out right.

Gernot So you are mixing colors on the site itself.

Chris Yes. (You can see this on page 617, in series of test colors painted on a foundation wall, to help us see which colors would work best for the building's main wall). This is the crucial aspect of what is going on. If I work on the exterior of the building, I have cement, white and gray, and all the necessary pigments in the raw state . . . I can mix any color I need, directly, from these raw pigments and the cement . . . I make up a cement wash and paint it on the building to see how it looks. If I am working on the inside of a building, I do the same with flat water-based colors. . . . I have flat white and enough pigmented colors so that I can mix almost anything I want . . . and I have dozens of little cups where I mix test batches, a few spoonfuls at a time.

In both cases I start by painting — usually for two or three days — simply putting different

colors there, intently looking for this inner light . . . and modifying the color gradually until it goes in the right direction.

Gernot Do you work one color at a time, or with a whole group of colors?

Chris No, I gradually develop the whole sequence of color harmonies which are to be in the building . . . so I develop broad areas of major colors . . . and then, while these are in the places where they will actually be in the finished building, I work out smaller quantities of smaller colors.

So, for instance, in Martinez, I first began to see a blue for an outdoor octagon seat (not shown). I tried blue after blue . . . bright blue, gray-blue, smoky blue . . . with the white of the balustrade . . . and the pale green of the base. The best one was a subdued grayish blue. Then, when this became reasonably clear, I began to place colors of the building itself . . . a blue-green on the panels . . . and a gray-blue on the columns. . . . To work with the blue of the seat, the blue of the columns had to be subdued. . . . Finally, when this color was right on the columns, the blue of the octagon seemed too bright . . . did not quite work . . . so I went back and added a touch of green.



The Martinez house. Christopher Alexander, 1984. The light created by the yellow grass, the blue sky, the dull green-blue of the house wall, and the pale, pale green of the columns and beams.

The interactions are extremely sensitive. For instance, while mixing the blue of the columns, there were two versions which differed in the amount of gray they had in them . . . one slightly grayer than the other. Either one seemed ok, but the one which was slightly grayer was alright with the green-blue of the panel . . . and the other, just a tiny fraction bluer, was not . . . and required either that it move, or that the panel color move slightly.

Gernot I still don't really understand why this could not be worked out in sketches on color samples.

Chris Because the differences, the nuances, which actually bring the building to life, depend on the colors all around in the surrounding buildings, earth, trees, sky. The right colors stem from relationships with all these things, and these relationships are far too subtle . . . and above all unpredictable. So working on the color swatches, and on color samples, in a sketchbook . . . just does not give accurate enough informa-

tion for us to predict when this inner light will actually appear. And you have to walk close to the building, and then walk down, far away . . . so that it works from all angles, with the light changing . . . at different distances . . .

Gernot I am beginning to see how difficult it is. But I do not yet see how it helps us understand what we have to do . . . why the fact that this must be done at the building itself, tells us something basic about the phenomenon of color.

Chris Well, consider the next point. Once the blues, and grays, and blue-greens are working all right . . . and they are working from the point of view of DARK-LIGHT CONTRAST . . . from their MUTUAL EMBEDDING . . . from their connection to the surrounding light and landscape (COLORS CREATE LIGHT TOGETHER . . . then we still have to get the sequence of the colors right (SEQUENCE OF LINKED COLOR PAIRS). These are all hard to do; they all require that we are looking at the whole — something almost impossible on a sketch, except as a first approximation. (Note:

these four color properties and seven others are described in Book 4, pages 157–240.)

In this case, for instance, the smallest amount of color goes to a very pale straw yellow which appears in the form of tiny diamonds, in the middle of the panels. This straw may have a touch of red in it . . . or it may have a touch of green . . . Once again, you can't tell except by actually mixing these colors, very rapidly, and painting small diamonds on the building . . . to see which one creates the inner light.

Gernot But I still don't see how this helps to understand the theory of the subject.

Chris Because, again and again and again, you realize that what works, what creates life, is an *empirical* phenomenon. The only thing which matters is whether the light actually does occur or not . . . whether the building does have the quality of a being . . . whether you really experience NOT SEPARATENESS in the building and the land. And this is a palpable empirical fact which you appeal to over and over again . . . it is the only thing which you appeal to.

On the other hand, the *idea* of color can get in the way constantly. One theory says you should try more detail, or a fine hairline of some lighter color . . . you try it, and it is hopeless. Another image of Greek houses tells that a beautiful clear Greek powder blue should be used . . . and you try it, and it is beautiful, but it does not have this wonderful peace and harmony in it . . . it is too garish, too brilliant, too sugary.

But it is your actual eyes, what you see, the empirical real facts about the way the colors work, and the real presence or absence of inner light . . . or not-separateness which is guiding you all the time.

If you try to anticipate, to mix the colors in a sketchbook . . . you cannot so easily be guided by this reality because it exists or does not exist in the real place only. . . . So it is necessary that you roll up your shirt sleeves, take some buckets and some brushes, be daring, paint and paint and paint on the real building . . . not caring who is watching or what they think.

While I was doing the work in Martinez, Gernot came by several times. At first he saw the experiments as if they were the finished thing, and very politely he kept saying in one way or another . . . this is very difficult (meaning "I don't like it much") . . . you are having troubles here . . . these remarks, of course meant kindly, could easily have been upsetting . . . because they invite exactly the kind of inner fear, the attempt one makes to please one's inner voices, inner critics, which constantly deflects the mind from the real task in hand . . . and tries to make the design, or the color, by reference to taste.

But again, it was all right so long as I could hold onto the facts . . . because the reality of the inner light being there or not being there is enough, so it is unnecessary to be confused or disturbed by whether someone is liking the experiments or not.

On the right, I show the interior of the Linz Café, a building built in 1981, in Austria, where every bucket of paint was mixed by hand and every surface was painted by hand. Here the sense of daring, even danger, in doing something so big, live, was very strong. Yet every bucket of paint was mixed in relation to the feeling that was there.

Gernot And why do you speak of daring?

Chris Because when someone comes by like this, as you are doing, it is so easy to be influenced by the thought that he thinks you are an artist, you must live up to his expectation of you, therefore to try and do the things he suggests, or sees, or mentions . . . and it is frightening to be out there, naked, looking only at the presence or the absence of light, and having to endure his bad opinion . . . it is frightening to endure this opinion, and to rely only on what you see.

But this is the only way. The real work of color cannot be done except in this way: painting every detail in a test. And for the same reasons, I always mix my own colors . . . even the ones which will be used in the production batches . . . because those are the only ones I can rely on. Once I have mixed

COLOR WHICH UNFOLDS FROM THE CONFIGURATION



Hand-painted interior of the Linz Café. Christopher Alexander and Pamela Alexander, 1981

the colors which do produce something towards inner light (the only thing I know is my formula on some scrap of paper at the building site), I cannot then take samples and try to get a paint shop or a factory to mix them. The discrepancy they produce, even if it is quite tiny, is greater than what is tolerable. The right color is “right” by a fraction of a percent of the amount of pigments that are in them. Most attempts to have a factory or a paintshop mix the same colors, fail. So I always make the tests myself, paint the colors, and then when I have a sequence of colors that really works in the real places on the building . . . then I go ahead and mix the actual batches of the paints that are used for production, according to the same formulas exactly.

Gernot And just tell me once again how this helps to understand the theory as a whole.

Chris What you have to understand are two things. First, understand that anyone who says he can do this, at a distance, by choosing color chips from sample books, without actually being there, painting and mixing colors on the building, at full life-size, is simply mistaken. You *must* do it yourself. There is no other way to achieve these results. It is the actual reality of the building which speaks to you. The color — its connection to the eternal

self — is an empirical thing. It is only trial and error, in the real situation, that can achieve it.

Second, you must do it with your own hands. When you tell someone to mix the color, and stand there and watch, you can get close — but you are still too removed to allow the real intuition and knowledge you have to go to work. It is when you mix the paint yourself — mix the color yourself, move the color on a bit of scratch material gradually to where your eye tells you that the wholeness is being fulfilled — then you can achieve the right result.

The completeness of the building, if you finally achieve it, comes from your own presence on the building site and your own reaching this completeness in yourself. The columns on the Martinez building may look white in a photograph (page 619), but actually they are the palest green. It is a beautiful green, that looks almost white . . . in that particular place, with that burnt grass and that sky. Real white was too harsh, too dazzling. It was only at the moment of standing there that it was possible to see that the white needed to be softened, and to find out by experiment that it was just *this* milky green which made the blue harmonious in the land.



2 / THE PAINTED KITCHEN

In the 1980s we began to consolidate our CES efforts as general contractors, and we entered a normal phase in which we were able to do building projects easily and successfully.

My love of color blossomed in these years. Color was always an essential part of what I did, but I began to see it, consciously now, as one of the essential ways in which life may be reached. The most extreme case, possibly the most extreme case I ever built, was a kitchen in which the whole room was viewed as a painting, and in which the whole interior wall surface was hand-painted in gouache.

I believe that color, like music, holds the key to life as it appears in art; it is, perhaps, the most

fundamental way in which things in geometry — that means real physical things in the world — make contact with God. It is the blue of the bluebell, the deep green of the sea, the yellow of the crocus, the white of the snowdrop, the awesome darkness of the mountains at night, which reveals their wholeness, and lets us reach God.

As a maker of things, I found that it is through color, above all, that one has the chance — however slight — of reaching this domain.

Once again, unfolding. When the room was getting near to completion, the plaster was on the walls, I began to think that color — more exactly sunlight and joy — needed to fill the walls more completely.