3 We the Designers

> Dear, dear! How queer everything is to-day! And yesterday things went on just as usual. I wonder if I've been changed in the night? Let me think: was I the same when I got up this morning? I almost think I can remember feeling a little different. But if I'm not the same, the next question is, Who in the world am I? Ah, *THAT'S* the great puzzle!
>
> —Lewis Carroll, *Alice's Adventures in Wonderland*

Looking at "a Wave"

We start by resting awhile with Mr. Palomar on the sandy shores of a beach where he has chosen to take a vacation. Let us watch him. The Italian author Italo Calvino wrote about Mr. Palomar's musings in an eponymous book, and in our first encounter, Mr. Palomar is preoccupied with a seemingly simple task—looking at a wave.[1] Mr. Palomar is specific: he wants to look at "a wave." But as Calvino informs us, it is a trickier problem than what Mr. Palomar originally thought it would be:

> But it is very difficult to isolate one wave, separating it from the wave immediately following it, which seems to push it and at times overtakes it and sweeps it away; just as it is difficult to separate that one wave from the wave that precedes it and seems to drag it towards the shore, unless it turns against its follower as if to arrest it. Then, if you consider the breadth of the wave, parallel to the shore, it is hard to decide where the advancing front extends regularly and where it is separated and segmented into independent waves, distinguished by their speed, shape, force, direction. In other words, you cannot observe a wave without bearing in mind the complex features that concur in shaping it and the other, equally complex ones that the wave itself originates.[2]

In the previous chapter, we presented different approaches to understanding designing, all of which were trying to comprehend the elusive wave that is designing. Some, using design theorist Horst Rittel's first-generation methods, have tried pinning it down by defining it clearly, akin to marking a boundary and calling that a wave. And just as you cannot define a wave by marking its boundaries, these methods found that in practice such definitions were not functional. Other theorists tried to loosen the definition, but they too found themselves struggling.

In this chapter, we outline our attempt to understand designing, which is somewhat like understanding the composition of a fugitive entity like a wave. Let's again listen to Calvino, who tells us Mr. Palomar's thoughts:

> So, to understand the composition of a wave, you have to consider these opposing thrusts, which are to some extent counterbalanced and to some extent added together, to produce a general shattering of thrusts and counter-thrusts in the usual spreading of foam.[3]

The different approaches we saw earlier either focused on the thrust or counterthrust by navigating different ranges in between. For Simon, it was problem solving. For Rittel, it was argumentation. But it is a bit of both and something more. Focusing on either the thrust or the counterthrust gives us only part of the picture. How do we then try to grasp the whole?

A Game of the Whole and Its Parts

Let us leave Mr. Palomar to his thoughts (that often frustrate him) and turn our attention to two children playing with five brightly colored blocks on the sand, awash with sunlight. One child takes the five cubes and arranges them on top of each other to form a tower. The other child kicks the tower and places three cubes on the ground and two on top of them, making a sort of pyramid. The tower, unlike the wave, is clearly made of those five blocks. The whole is a sum of its constituent parts. A bicycle, for example, has two wheels, a chain, handlebars, and a structure that holds the parts together. We can determine how the bicycle will behave based on the different components it is made of and the relationships between them. The behavior is predictable. If we need to construct another bicycle, we can follow the same process by assembling it from its constituent parts. Our approach to understanding the bicycle can be described as follows:

Characteristic	The whole can be split into its constituent parts. Each part is clearly defined. The relationship between the parts is fixed.
Behavior	Its behavior is predictable. It can be determined using knowledge of the parts.

Such an approach is Cartesian (after the French mathematician René Descartes). It is based on the principle of reduction (the whole can be separated into parts) and the principle of disjunction (each part can be defined fully, and the relationship between different parts is fixed).[4] If the entire universe adhered to these principles, it would be possible to predict its behavior exactly, a claim made by Descartes as well.

But to predict what the universe does, the predictor needs to be clearly separate and distinct from the universe. Apply the ideas of Descartes to the entire universe, and separate people from the material environment, which we call nature and which can be said to be an invention of the ancient Greeks:

> The greatest of all Greek scientific discoveries was the discovery—or rather, as philosopher Geoffrey Lloyd put it, the invention—of nature itself. The Greeks defined nature as the universe minus human beings and their culture. Although this seems to us to be the most obvious sort of distinction, no other civilization came upon it.[5]

What are the consequences of such an approach? You can keep dividing a whole into different parts. For instance, you can separate the mind from the body. And then you split the body into different parts and study each part in isolation: the heart is a pump, the kidneys are filters, and arteries are pipes. The body is a machine. Similarly, you can study the mind as an entity unaffected by the body it resides in. The mind as a computer paradigm flows naturally from this approach, which polymath and Nobel Prize–winner Herbert A. Simon subscribed to.

What are the consequences for designing? For starters, this model aspires to a linear process, such as analysis-synthesis or evaluation. Despite the feedback mechanisms integrated into this model, at its heart beats a linear process.

Second, this is a flattening approach to designing. Take a transportation project. If you think of the transportation project as being made of the blocks a child was playing with, then you can identify different components, such as economics, a process to acquire land, the machinery required, and

people. Whether the transportation project is for Kathmandu, Kinshasa, or Kyoto, you can execute the same process. It is as though the transportation project is a plug that can be inserted anywhere, and Kathmandu, Kinshasa, and Kyoto are nothing but interchangeable sockets.

Enter Our Protagonist: Context

This is where our orderly idea of the wave runs into a squall because Kathmandu and Kinshasa are anything but obedient blocks. These cities determine context, and their context is different from that of Kyoto. The word *context* does not evoke a fanfare of trumpets, as might befit the entrance of a crucial character in a story. But it should. The word sounds dull, like a forgotten textbook sitting on the fourth shelf of a rarely visited library. But it is anything but dull. It is a word that literally weaves together various elements. Context is formed from Latin word *contextus* (from *con* for "together" and *texere* for "to weave"). But what does it weave together? It helps braid the what, how, who, and why of designing. It is the soil in which the meaning of designing grows. For designing, it is like the air we breathe. Without it, designing would be lifeless.

Why can't context be treated like an obedient building block—a well-oiled part in your complicated machinery or a well-defined part of the whole? The reason is twofold—definition and relationship. When you build public transportation—say, a metro train—for a city, the metro affects the city, and the city is affected by the metro.[6] If context is the situation, the surroundings, the circumstances, and the setting, can you remove the metro from the city and still call that the context, or do both the metro and the city together form the context? How would you define the wave when both the sea and the wave define each other?

Why is context crucial to design? Take the case of a US retail giant that started operations in Germany but had to shut them down. When asked about the failure, its former head said, "We didn't realize pillowcases are a different size in Germany."[7] Although it seems a simple enough idea—that we should pay more attention to context—we seem to be taken by surprise when the one-size-fits-all approach fails.

Take the case of a development project in a village in a state in east India.[8] The government decided to intervene with a dairy development scheme that aimed to improve the villagers' livelihoods, despite the village being

in a milk-surplus district. Some farmers were given cows impregnated with imported semen of a high-yielding breed. The local bulls were subjected to a major castration drive so that the high-yielding cows did not mate with these bulls. Some farmers were asked to grow a specific species of tree that could become the fodder for all these cows. Two years and twenty million rupees (about $280,000) later, the project saw eight cross-bred calves and not a single tree. Important questions (such as why start a dairy development project in a milk-surplus district or why plant a species of trees most unsuited to its land) were never asked. In other words, the people who were the intended beneficiaries of the scheme were never consulted about the plan's goals and methods.[9]

Context is about people. If context is about weaving together various elements, every thread is connected to people, their families, and their mores, traditions, needs, customs, culture, desires, fights, and biases. Is it possible to reduce these to neat variables that can be assigned a convenient value? Can questions about people (what motivates people, what pleases them aesthetically, what do they value, what do they ignore, what makes them afraid?) be transformed into plug-and-play answers that can fit into any problem? Many variables—the intricacies of the government bodies people have erected, the attitudes of the people responsible for those bodies, the nature of the power structures within them—affect people and, in turn, the things that are being designed for them.

Context is messy, but designing cannot survive without context. It is about situating living beings at the center. The blocks can be arranged in a tower, but when you bring in those children, you have a different situation altogether. Their actions—how those children interact with the blocks, what meanings they make out of them, and how they arrange them, play with them, and design with them—decide the final outcome. Those children, along with what they like and what they wish to create, are intangibles that are part of the context.

A gun is made of different parts, but designing a gun is not just about those parts. It is also about the person who is going to handle the gun. The reason the gun is going to be used, the meaning of having a gun inside a home, and the laws that govern guns and the people using them are all encompassed in that one word—context. Understanding living beings, the social groups they belong to, and their institutional structures and power relationships implies understanding context. Any theory of

designing without this context remains an empty shell that is not infused with life.

Thinking of Monkeys

If we want to arrive at a conception of designing that can give context its due importance, how do we proceed? One approach is to go the opposite way: instead of a linear process, let us think of a nonlinear process. Instead of objects that are defined and stable with clearly marked relationships, let us go to a world that is unstable and does not have well-defined objects or stable relationships.

By adopting this opposite path, we are now in negative space. In art, negative space is the space that surrounds the subject of the artwork. It becomes as important as the subject itself because the negative space lends definition to the subject. In some cases, this negative space is used quite cleverly. Think about the FedEx logo, for instance, where an arrow is formed by the negative space between the letters *e* and *x*. Even if we focus on the negative space, we remain within the same frame. As George Lakoff,[10] the cognitive linguist would say, "We are not thinking differently." What does he mean?

To understand this, let's read about the folktale of a king who suffered from a tummy ache. The medicine wizard prescribed a tonic made of exotic herbs and told the king that the tonic would solve his ailment but only on one condition: he should not think of monkeys while taking the medicine. The king went home. When it was time to take the medicine, all he could think of was a monkey. The shadow of a fern reminded him of a furry tail. A cackle outside was the chatter of simians. When his child came running to him with her supper smeared on her face, all he could think was "such a dear chimp." Thus the medicine wizard's counsel proved to have the exact opposite effect of the king because it did not change the frame of the king's thoughts.

In his book *Don't Think of an Elephant! Know Your Values and Frame the Debate: The Essential Guide for Progressives*,[11] Lakoff talks about how we have a network of associations attached to different words. An elephant evokes associations of huge animals, trunks, and circuses. He calls this set of associations a "frame." By using language such as "unstable," "nonlinear," and other such negatives, we continue to dwell in the same frame as before.

When the frame is changed, it alters how we view the world. An illustration of this comes from India, where the brutal rape of a young woman in

a bus moving through the streets of the capital led to a widespread debate on how laws related to sexual assault should be reformed. A commission was appointed under J. S. Verma,[12] a former judge of the Supreme Court of India. This commission's report changed the frame of the system. Instead of "women's safety" as the centerpiece, the commission's report chose "women's autonomy." All the previous concerns regarding women's safety remain intact. For instance, a patriarchal way of ensuring women's safety would be to ask them to stay at home after dark. But this response would not hold if the anchor is women's autonomy. The system would then have to provide ways of ensuring the safety of women while respecting their freedom. Similarly, can we conceive of this alternative view of designing? Can we change the frame?

Context and Complex: Two Sides of the Same Coin

The words *context* and *complex* have similar roots. The word *context*, as was shown earlier, means "to weave together." *Complex* also has its roots in *com* ("together") and *plectere* ("weave"). What if we view designing, where context is crucial, as a complex system? In 1984, at the Santa Fe Institute, the term *complex system* was used to describe dynamical systems with a large number of interactions and feedback, inside of which processes very difficult to predict and control take place.[13] Whether ant colonies, economies, stock markets, or the World Wide Web, these systems produce and use information and signals from both their internal and external environments and, in doing so, learn and adapt. These systems have innumerable components that produce characteristics such as complex, hard-to-predict, and changing patterns of behavior. There is no clear definition of a complex adaptive system, but these are the different characteristics that mark them.[14] Can we conceive of designing as a study of a complex adaptive system? What would such a conception be?

A Game of Whole and Parts Revisited

Let us return to the beach. How do we understand a wave? We said we look at how the thrusts and counterthrusts interact with each other. The definition of a wave is elusive, but we can try to understand how these thrusts and counterthrusts interact, how these *processes* shape the wave. This gives

us a clue as to how to proceed. From defining objects, we try to understand processes. From nouns or objects, we focus now on verbs or processes.

What were the different nouns that we used in chapter 2 during our discussions on different approaches to designing? We wondered whether to focus on the individual or the social and whether to conceive of a descriptive approach or a prescriptive approach. When the whole is split into parts, we need to focus on the parts and the objects and choose between one or the other. What if we conceive of a different whole that is shaped constantly by what constitutes it? Like a group of waves that together cause the sea to change constantly, every wave is affected by what's around it, and what's around shapes each wave. In the words of the mathematician Blaise Pascal, can we conceive a circular relation? "One cannot know the parts if the whole is not known, but one cannot know the whole if the parts are not known."[15] Can we simultaneously comprehend the whole and the parts?

Instead of fixating again on this wave or that, can we focus on the relationship between the waves? We spoke about how the system is dynamic and is constantly changing. Can we focus on the process that results in this dynamic quality? Can we focus on the collision, collaboration, and conversation between these different parts? Every such conversation results in a new conception of the whole, and this affects future conversations. In a sense, the whole and the part dichotomy falls apart because there is a dynamic connectedness. What would you then term as the whole, and what is the part? The parts influence what the whole is and vice-versa. Fixed beliefs of what constitutes the whole and what constitutes the part no longer remain valid. We have to abandon our search for a wave.

If we let go of the fixedness of different objects, we see how we constantly construct different wholes based on the dynamics of different parts, which are again affected in the same way as the wholes are. For instance, take the notion of *I*. It is something we use easily, without much consideration. The word *I* refers to a fixed notion of the self that is independent of the situation one is in. It is independent of context. But what is the definition of *I*?

Is it your body? Your body has millions of bacteria that are constantly changing the constitution of your body. As you breathe in and out, the composition of these bacteria changes.[16] Would you think that you are changing every second? Or for that matter, are you the same in your workplace, in your home, in the arms of a loved one, and in a situation when you are faced with stress? In Japanese, the word *I* is not often used. Instead

Japanese has many words for *I*, depending on the audience and context. For instance, a man talking about himself in relation to his buddies would use *boku* or *ore*.[17] The context of a father is different from the context of a child talking to her family. The connection between the context and you changes who you are, just as you change the context you are in.[18]

If the ideas of whole and part become more fluid, what can we hold on to to understand what is going on? What do we call this process that causes different parts to interact constantly, changing and modifying themselves as well as the whole they constitute? The constant tension? A dynamic, continuous, and layered process? Can we conceive it as a dialogue?

On Dialogue

The root of the word *dialogue* lies in *dia* (which means "across") and *logos* (which is "knowledge"). A constant dialogue, a back and forth between the currents and countercurrents, gives rise to complex and dynamic behavior. A dialogue is not just a conversation between two entities, which implies an exchange. Rather, it shapes and is shaped by the entities participating in the dialogue.

A dialogue resonates with Pascal's idea that "One cannot know the parts if the whole is not known, but one cannot know the whole if the parts are not known." Rather, what we can attempt to understand is the dialogue that goes on. The result of this dialogue could be that the whole is more than, less than, or equal to the sum of its parts.[19] This is because instead of focusing on the parts or the whole, we are trying to focus on the relationship that mediates between them and transforms them.

When it comes to designing, a dialogue is characterized by a crucial quality. For instance, you design the idea of *I* based on different contexts. There

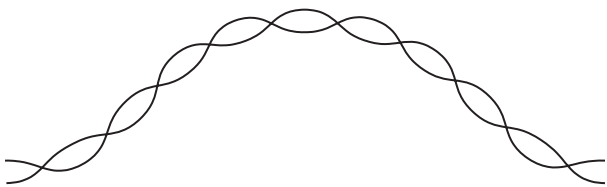

Figure 3.1
A dialogue.

is a negotiation between different threads that make who you are and helps you arrive at an idea of *I*. A dialogue implies that a difference is involved. A dialogue between identical entities is akin to a cellular automata—a grid where every cell assumes a color based on the colors of the cells adjacent to it. However, we are referring to a situation where the dialogue causes a change not just in color but in the very cells themselves. It is a dialogue that causes difference and that dwells in difference. And it is not just difference; it is difference married to plurality. It is not just many, and it is not just variety. It is a confluence of both. It is diversity. Our conception of designing requires and calls for diversity.

We conceive of a dialogue as a constant and dynamic process. The dialogue does not end; it does not have a full stop but pauses at different points of time. These pauses are what we term *temporary closures*. If we let go of the fixedness of objects, then what we have is a temporal understanding of the state of the dialogue the object is undergoing, and that state is captured in temporary closure. For instance, at every second, it is not possible for us to constantly dwell on the changing nature of *I*. Rather, at a certain point of time, the dialogue results in a temporary closure, which is what you perceive as the sense of yourself.

We tried to understand the characteristic and the behavior of the system a little while ago when we adopted a Cartesian approach. If we view a system as being characterized by a dialogue, what is its behavior like? The behavior is also a dialogue because there is no linear relationship between cause and effect where you can say, "This is the characteristic of the system, and this is the behavior." Rather, it is recursive. At every level, what we encounter is a dialogue. And so whether we discuss designing, the study of designing, or understanding a designer, we will adopt the same approach—that of a dialogue.

Dialogue and Designing

At the heart of a conception, where designing is conceived as dialogue, lies context. As artifact changes, context will change too and vice-versa. This dialogue involves the designers, too.

In chapter 2, we present different approaches that focus on the individual designer. There also are approaches that grapple with the social aspect

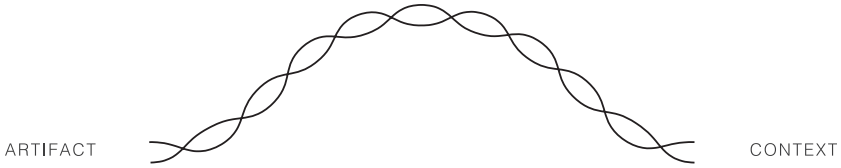

Figure 3.2
Designing involves a dialogue between the artifact and its context.

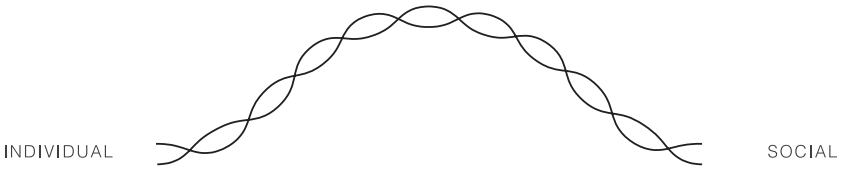

Figure 3.3
Designing involves a dialogue between the individual and the social.

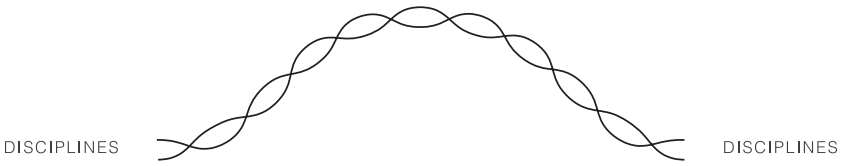

Figure 3.4
Designing involves a dialogue between diverse disciplines.

of designing—how negotiations and discussions shape the designing process. The idea is not to flatten all individuals into an amorphous social entity or to see the individual as decontextualized. Instead of focusing on either the individual or the social, a conception of a dialogue allows us to focus on both simultaneously. How does the individual affect the social and vice-versa? Think of a tug of war. Every individual's strength is important, and yet at the same time, the individual's behavior is shaped by the group's behavior.

A dialogue, as described before, implies that designing necessarily requires multiple perspectives, multiple knowledge bases, multiple points of view. Any designing activity is necessarily transdisciplinary: it is a dialogue among different disciplines.

Not privileging one discipline over the other—rather, not privileging one kind of knowledge over the other—is the crux to realizing a complex view of designing. We are more used to respecting explicit knowledge—what we see in literature and other media. But there is implicit knowledge that cannot be captured in such a format, which also is important to design. For example, there is knowledge gained by experience, knowledge passed on from one generation to the next, and knowledge passed on through songs and children's tales. Every bit of such knowledge is required to design and to study designing because the knowledge is crucial to understanding context. Context has everything to do with being human, and being human is not just about what can be articulated in words and calibrated through machines.

Christopher Jones, who championed design methodology in the 1960s, later repudiated it and called for disavowing fragmentation:

> To solve the problems created by the specialization of the craft process, its fragmentation into a growing number of professions each highly specialized, requires more than a change in methods of thinking and of modeling. It requires an ability we do not yet have, the ability to communicate fully and quickly across the barriers that separate professions and which isolate their thinking from the experience of users. Perhaps it requires the disbanding of our tradition of separating planning from using, and a return to much less specialized, and more integrated, forms of responsibility and work. Certainly it needs some really fresh thinking about how to use computers and communication media. Our efforts so far to organize life at the scale of the system seem to rely not on rethinking the aims and purposes and modes of operation of activities like transport, education, medical treatment, housing, telecommunications, etc. All we have done so far is to homogenize to force life to fit increasingly standardized systems that are simple to design but insensitive to how it feels to use them. Our excuse, as professionals, as non-persons, is "I only work here." It's clear to me that no big change is possible till we change ourselves and our ideas.[20]

Designing as dialogue calls for disciplines to talk with each other and for less fragmentation, and it resonates with what physicist John Ziman describes as "post-academic science." Given that science has to tackle complex problems, he, too, calls for a pluralistic approach:

> The world of practice does not carve itself up neatly along the joints between the academic disciplines. In the context of application, all problems require a multi-disciplinary approach. Every important technological development—the transistor, antibiotics, nuclear weapons—combines ideas and techniques from all

> over the academic map. If we have enough imagination, we can see this is equally true for research into fundamentals, such as the origins of life or the workings of the brain. The most radical feature of post-academic science could be its unself-conscious pluralism. It will welcome conceptual diversity and not be fearful of possible inconsistencies. If an untidy mixture of theory and practice, computer simulations and numerical data turns out to be the best available solution to a particular problem—so what?[21]

We see the dialogue in designing as a continuous process of refinement, and therefore there is no idea of a perfect design. Rather, what we have are temporary closures, which are pauses before the design continues. Thus, when conceived as a dialogue, designing is a constantly evolving and dynamic process involving the designers, context, and the artifact, which is punctuated by temporary closures.

Dialogue and the Designer

What a transdisciplinary approach involving designing as dialogue implies is that people who have expertise in different disciplines will come together to collaborate with each other. Such a collaboration is underlined by mutual respect. In his *Five Minds for the Future*, educationist Howard Gardner talks about different minds people should have to be successful in today's world,[22] one of them being the "respectful mind." He says: "It is recognizing that the world is composed of people who look different, think differently, have different belief and value systems, and that we can no longer be hermits and live in complete isolation." For us, the respectful mind denotes bringing such an attitude to designing, where each one is respectful of the other person's disciplinary background. It is not just sufficient to bring different people to the table. It is necessary for them to break bread with each other.

The question now is, "Who should be invited to the table?" And the answer is, "Anyone who is affected by the design and anyone who has insights into the context that affects them." Essentially, everyone is a designer. Everyone has some knowledge to offer to make the design contextual, meaningful, and richer.

Even with an individual designer who is designing by himself or herself in a garage, there is a dialogue. We design in collaboration with who we were and who we are now—our past selves and our present selves, our multiple identities, the knowledge we have and the knowledge we accumulate

Figure 3.5
Designers in dialogue with themselves.

afresh, the different disciplines we are learned in. All of these are in a constant dialogue with each other.

Moreover, given such a conception of a designer, there is no split between the creative and the analytical, the practitioner and the theorist, the doer and the thinker. To put it more succinctly, there is no divide between the mind and the body. Such a conception of a designer parallels Vitruvius's idea of someone who knows the practical arts as well as the theory behind it—someone who has an idea of the how, what, and why. Seen in this fashion, all of us are designers because we all draw from different knowledge bases that we have to design. Each of us has something to offer, a perspective drawn from experience and education, and each of us shares that dialogical relationship with the material world.

If everyone is a designer, then the study of designing is a liberal art, which according to its classical definition, is a subject that any free (liberated) citizen should study, understand, and explore. Instead of boxing disciplines into hermetically sealed compartments (such as sciences, arts, crafts, and law), designing demands synthesis. Open up the seals, and let the disciplines flow into each other. As we plumb the depths of our own fields of study, we will also broaden and learn from one another.

In some literature, a designer is referred to as a T-person, someone who understands a particular field in depth and can also synthesize across different streams. Thus, a designer has to have what Gardner[23] refers to as the disciplined mind, synthesizing mind, and creative mind. The disciplined mind comes with expertise in a particular discipline's tradition of thought. A synthesizing mind can understand and relate across disciplines. A creative mind can articulate fresh ways of seeing. It is the same view propounded by the Bauhaus and others—the conception of a designer as an advanced generalist rather than a narrow specialist. Designers are in constant dialogue with themselves and others. They are reflective practitioners.

Let us tell you about the story of a young mechanical engineer whom we met during an internship project and who did not believe in such a conception of a designer. He was asked to go out for fieldwork and collect data for a research project. After a few days of braving the hot summer streets of Bangalore, the intern came back to the office and said that he wanted to do some real work. On being asked to clarify what he meant, he said he wanted to work on computational modeling. The days of his internship were passing by in a blur of questionnaires, and he had not yet spent any time in front of a computer. He was getting nervous because when he applied for jobs later on, he had to demonstrate that he had created computational engineering models.

When asked about his fieldwork experience, he said he had been on a trip to interview people who made *agarbattis* (incense sticks) to understand about their livelihoods. When asked how they made these *agarbattis*, the young engineer explained the process. When asked if he could make a device that would help these people make *agarbattis* faster, the young engineer laughed at what he thought was a joke.

But he was faced with a challenge—to make a device that would help the women making *agarbattis* work faster without compromising on the quality. The young engineer continued to think it was a joke.

Some weeks passed, and what had started out as a lark had become an obsession. The would-be mechanical engineer worked with carpenters and friends to design an *agarbattis*-making machine. He had sent his fieldwork supervisors photos of this machine along with a letter that expressed an honest surprise and gratitude that this experience had made him look at engineering from a new perspective. He realized that trying to design such a machine without talking to the women entrepreneurs—to understand the economics of their business and the anthropology, sociology, and plain common sense that it required—would have been a theoretical exercise, devoid of any practical significance. The engineer had had his first lesson in what it means to design.

Dialogue and Society

What kind of a society would we design if we had a dialogue? Everyone who is affected by design would participate, not in a superficial manner but in full measure.[24] The goal of this dialogue would be to understand and

explore how design affects us and how we are shaped by it. By bringing in this knowledge, we can change the way design is done. A dialogue internalizes and makes explicit the idea that we are shaped by and give shape to the world around us.

The core idea of a republic is that people have a say in what happens to them. It implies reclaiming in full measure this dialogue between humans and the human-made. We need a new constitution where we talk about how we have a say in what affects us, how we can explore the choices of what is designed, how we can participate in the design and be heard.

The Story of Designing So Far

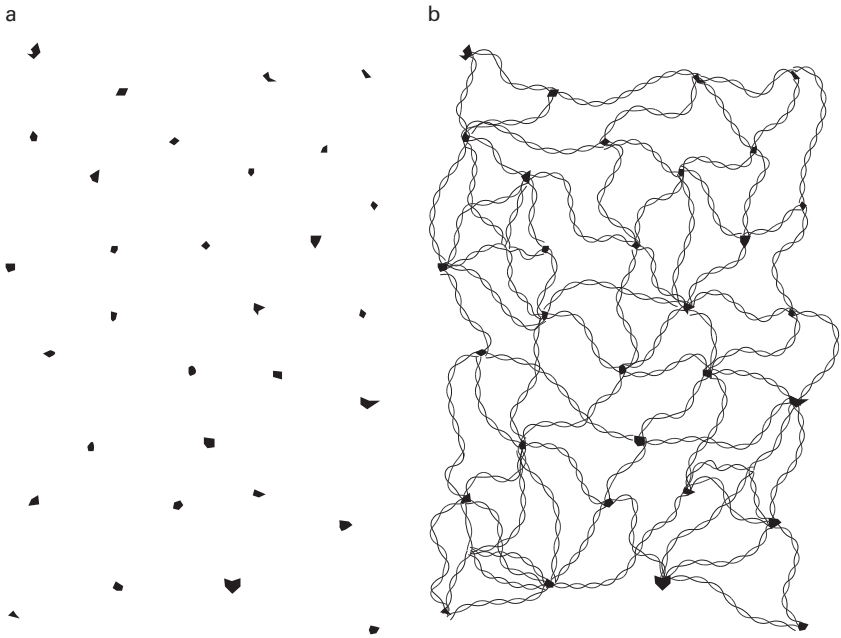

Figure 3.6
(a) Diverse people come together and (b) have a dialogue.

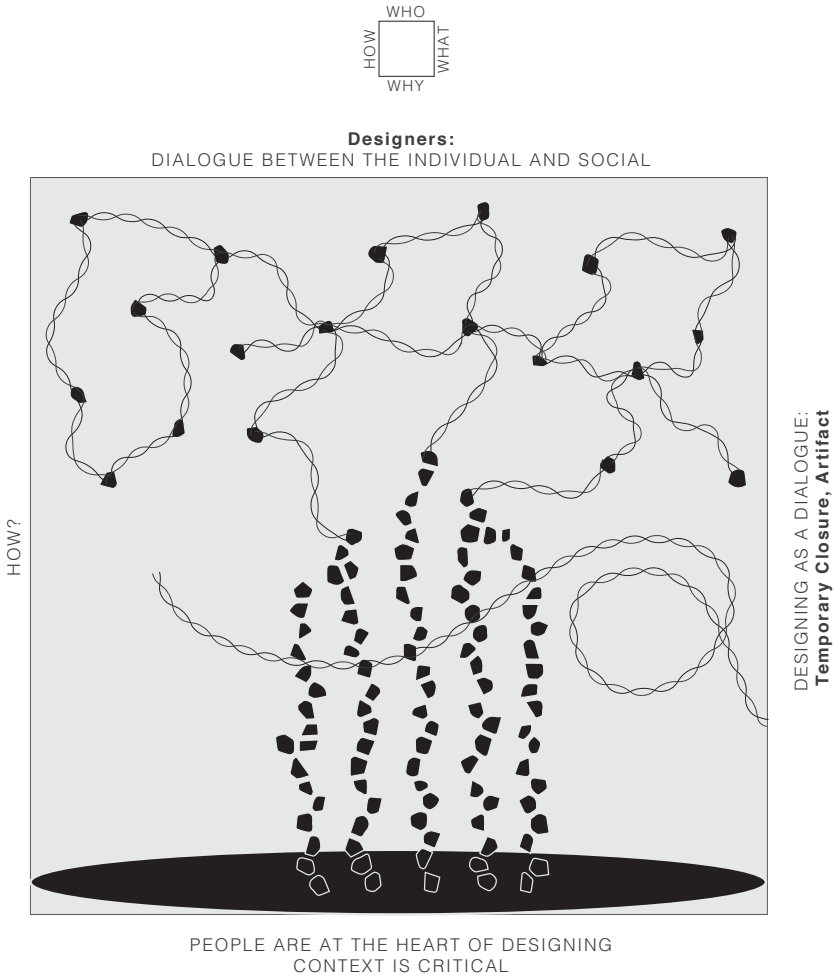

Figure 3.7
Designing as dialogue.

We Are Not Users

Dialogues, Diversity, and Design

By: Eswaran Subrahmanian, Yoram Reich, Sruthi Krishnan

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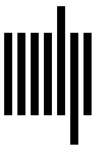

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