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# Interview with Earl Powell

Since 1985, Earl N. Powell has been the president of the Design Management Institute, the leading international organization dedicated to improving the management and utilization of design. Before the Institute, Mr. Powell was director of Industrial Design and Human Factors for GenRad, Inc. Prior to joining GenRad, he was an academic administrator and instructor at both Boston University and Rhode Island School of Design. Powell received his Bachelor of Fine Arts degree in industrial design from the University of Illinois, and Master of Fine Arts and Master of Art degrees from the University of Wisconsin.

*What skills must a designer have today?*

From the point of view of a design manager, which is quite different from that of a designer, I think that they are not really different from those that design managers needed years ago.

If you want to talk about a designer and the artifacts that a designer designs, the shaping of the physical form is a key skill. That appearance of a product must both please and inform. That means that perceptually there are fundamentals that are still needed.

The tools we use to design are changing; but hopefully the designer leaving school have a level of fluency in pleasing and informing. Once they have that originality, the tools will help. I think that we are talking about fundamental issues, the tools can get in the way.

*When you refer to "please" and "inform," am I right in assuming that you are not making a distinction between 2D, 3D, spatial design, or the design of virtual space?*

No, I am not. I think it is so difficult to learn how to please and inform, that the more difficult the tools, the more difficult it is to teach these concepts. For instance, I feel that life drawing is one of the best ways to teach certain dynamics and assumptions. It is about learning to see and what appearance is all about. It is reconstructing your assumptions about your world. With seeing, where we have always noticed what the world is all about, we tend to take things for granted and not notice things after a while. We build vocabulary through these exercises and that allows people to see all sides of the problem, all sides of something that is trying to be understood through paper and pencils.

*What do we have to know as a designers today to work in a world that requires knowledge of volume, graphics, space, and the virtual?*

It is just information taking different forms. The designer can relate to all of this, look at all sides, and have the processing power to integrate that information into a design, a solution, or perhaps an artifact. For example, a doorknob has a set of information clues that inform someone about the way it works, the direction to pull the door, and its function.

*Are you saying that the differences between 2D, 3D, space, and the virtual don't matter; that you don't have to be trained in each of these to contribute to them?*

The process of making judgments (of these disciplines) I think is taught at some basic design level, and that does not require any special tool. Unless you get basics and the ability to make such judgements, the best tools in the world will not give you the ability to solve these problems.

*But don't the tools change the way you conceptualize your work and the ways we think. What do you think has changed because of the tools?*

I think the tools allow much more direct contact. There is a more fluid dialog with the process and in making decisions. The middle manager might very well disappear because their primary function is to move information around. Eighty percent of the cost of development is concentrated in the conceptual phase. If the tools can offer more effective ways of relating the information to others along the way, it is critical that we use those tools.

*What is the design management point of view?*

There are two different sets of responsibilities. The designer is responsible for shaping the look and feel of the artifact. The manager is responsible for a series of decisions that develop and position the resource of design within the organization.

*Do you agree that among the most important issues facing design management is to position design in the top layer of the product development instead of much later downstream?*

The design influence must be an equal partner from the beginning. Designers have this incredible ability to integrate and present information, and they often end up in a leadership role. We are still struggling to get companies to understand this, however.

There is no one simple answer to making this happen. The shifts in the economy will result in

having many services being sought from an outside position. We will likely find this to be a golden age for consultants. One of the ways that this will happen will be through the tools we use; the computer, for the most part, is allowing this to happen.

There are two things happening: companies are being down-sized, but they are much more productive. There are advantages and disadvantages to all of this. We are in the throws of massive restructuring of the way we do our work.

Another thing going on is that people are learning that technology alone will not create a sustainable and competitive advantage. A lot of it has to do with how close you are to the customer's needs and how committed you are to delighting the customer. To meet both their conscious needs and their latent needs is very, very important. We can't just cosmetically redesign things as fast as we can. We must consider being responsible in terms of resources and design.

What is responsible design? It is a broad set of conditions and issues. It is satisfying customers and taking care of all the stakeholders, including the employees, the stockholders, and the people who dispose of all the extra "stuff." That is one of the special things about a designer—the sense that they are there not just to make it pretty, but to make it something that a person can use that enhances their lives. It has to improve their lives.

*Is it the obligation of designers to champion these ideas and ideals? And how do you do that?*

We need designers in the top product planning positions in corporations. Thinking about all sides of an issue is a necessity. In doing a drawing of an artifact you are thinking of all sides; which is really another way of managing it. That is why people (like designers) who are trained in thinking of all sides of a problem make excellent managers. Design includes visualizing, but it is conceptualizing more than just visualizing. It is getting your arms around the problems.

There is another thing that is a barrier and a capability at the same time. When a designer does a drawing, it is not only a visualization of the idea but an artifact of the process and the steps that happened along the way. To the people sitting around the table, it is typically thought of as an artistic depiction, and then immediately judged on how accurate it is, not on its conceptual information.

It goes back to the cliché "A picture is worth a thousand words." Change that to: "This drawing embodies a thousand decisions" and you suddenly change the mindset you have in looking at the drawing. A drawing communicates both informa-

tion and potential decisions. Most people look at it as information and as an artistic depiction; those assumptions are wrong. They look at the drawing as something that represents the object realistically. They do not see it as a method of expressing essential information about visual styling as well as process and production. This is a barrier in many ways. It goes back to the value we put on the activity of visualization. Drawing and visualization are not thought of as intellectual thinking, they are not valued.

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*Thinking of all sides of a problem is really managing it. It is visualizing, but it is conceptualizing more than just visualizing.*

*We can't just cosmetically redesign things as fast as we can. What is this in terms of responsible resources and responsible design.*

*It goes back to the value we put on the activity of visualization. Drawing and visualization are not thought of as intellectual thinking, they are not valued.*

— Earl Powell