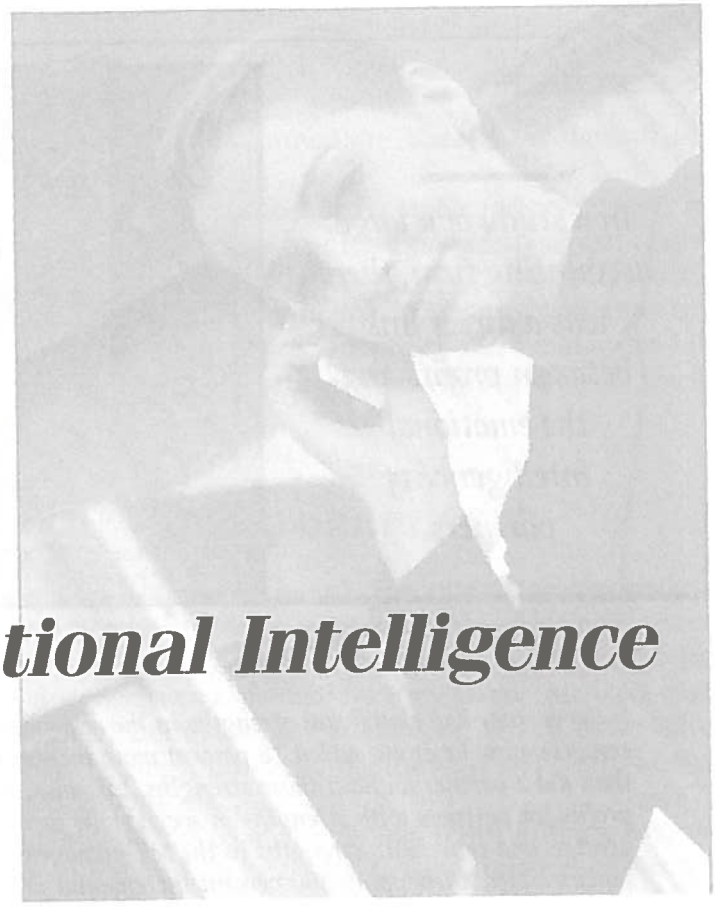

12

Emotional Intelligence

Most of us are familiar with the IQ, or intelligence quotient. People who have high IQs usually do well in school—at least if they apply themselves. Certainly their high IQ gives them the ability to do well in school.

For leaders, IQ would help them master the technology and tools they need to handle various aspects of the job. However, Daniel Goleman and his associates have found that a far greater determinant of leadership success is *emotional intelligence*: how leaders handle themselves and their relationships (Goleman, et al, 2002). These findings do not refer to "soft" criteria only, such as how people feel in their jobs. They include financial results as well. For example, they found in a study of a large accounting firm that there was a direct link between profits and the emotional intelligence (EI) of partners.

EI

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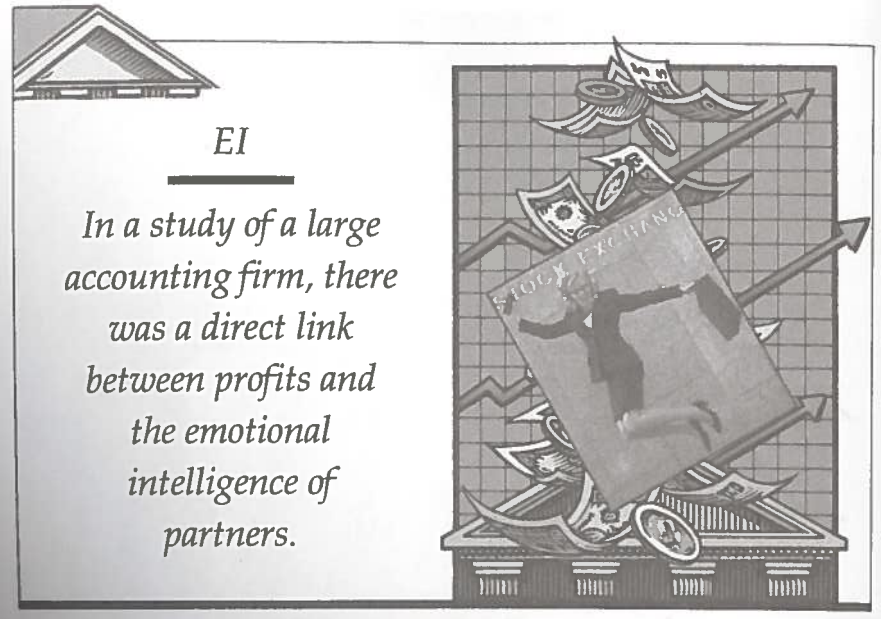
If the partner had significant strengths in the self-management competencies, he or she added 78 percent more incremental profit than did a partner without those strengths. Likewise, the added profits for partners with strengths in social skills were 110 percent greater, and those with strengths in the self-management competencies added a whopping 390 percent incremental profit—in this case, $1,465,000 more per year.

By contrast, significant strengths in analytic reasoning abilities added just 50 percent more profit. Thus, purely cognitive abilities help—but the EI competencies help far more (Goleman, et al, 2002, p. 251).

The soft criteria do count, but even when they appear to be "soft," there is usually a bottom-line impact when people are not happy with their leaders. For example, Goleman discusses the effect that the SOB boss has on people, and cites research that found that such bosses drive away talent. Study after study has found that people leave jobs primarily because of dissatisfaction with their boss. The Gallup Organization analyzed data obtained in interviews with over two million employees at 700 American companies and found that what determines how long employees stay in a job—and how productive they are—is the quality of



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their relationship with their immediate boss (Goleman, et al, 2002, p. 83).

When you consider that the cost to replace a factory worker is several thousand dollars and the cost for a professional can easily be several hundred thousand dollars, then the cost of such turnover has a direct effect on the bottom line. Yet many companies do not include this measure in the assessment of their managers—if they did, it would give them clear signs of which managers must reform or go.

EMOTIONS—IN THE WORKPLACE?

When I was a young engineer, I heard a number of managers admonish their employees to "leave your emotions at home," when they came to work. Yet they wanted these same employees to be motivated to do good work. Somehow they never realized that *emotion* and *motivate* both have the same root, which essentially means "to move." Being motivated is an emotional state. Rocks aren't motivated. People are.

Take away emotion and what are you left with? Either a rock or a zombie of an individual. In fact, consider the function of a compelling vision: it is to arouse passion in people. As the proverb says, "without vision the people perish." To quote Goleman, et al,

> *Great leaders move us. They ignite our passion and inspire the best in us. When we try to explain why they are so effective, we speak of strategy, vision, or powerful ideas. But the reality is much more primal: Great leadership works on the emotions (Goleman, et al, 2002, p. 3).*

They go on to say that, no matter what the leader tries to do, the leader's success depends on *how* she or he does it. Even if a leader gets everything else right, if she or he fails to drive emotions in the right direction, nothing will be done as well as it could be.

In every instance that I can remember in which someone has told me about working at a great company or on a challenging project, the core has always been the same: There was great excitement generated. People were energized by their work, they

were driven to achieve grand results, and they expended considerable energy doing so. It may very well be that passion is the ingredient without which an organization is dying but just doesn't know it yet!

EI COMPETENCIES AND LEADERSHIP

Prior to 1973, the conventional wisdom was that if you wanted to select the right person for a job, you should find those who had high IQ, technical skills, or personality. David McClelland proposed a truly radical alternative. He proposed that an organization first study employees who were already outstanding performers in a given position, then compare them with those employees who were just average at it. This approach yields not just the threshold abilities for a position—those basic skills that everyone must have to do the job—but most importantly, the *distinguishing* competencies. Once these are known, suggested McClelland, you can either choose individuals who already possess the required competencies or develop them. This practice is now standard in world-class organizations that have developed a leadership competency model to identify, train, and promote likely stars.

An example of such a leadership competence model is one developed by a division of Siemens under the guidance of Lyle Spencer. They identified a pool of star leaders, whose growth in revenues and return on sales placed their performance in the top 10 to 15 percent. These branch managers had annual sales that were 75 percent higher than those of the average managers: nearly 30 million dollars, compared to 17 million, and a 106 percent higher return on sales (Spencer, 2001).

When the stars were compared with the managers whose performance was only average, four EI competencies—but not a single technical or purely cognitive competency—emerged as the unique strengths of the stars. These were the drive to achieve results, the ability to take initiative, skills in collaboration and teamwork, and the ability to lead teams (Goleman, et al, 2002, p. 36).

EI

There are four components to EI:

- *self-awareness*
- *self-management*
- *social awareness*
- *relationship management*

The conclusion, then, is that emotional intelligence is a greater determinant of leader success than purely cognitive skills or technical ability. Furthermore, the good news is that these are not genetically based but can be learned, so that any individual can potentially improve his or her leadership skills.

Just what, however, is meant by emotional intelligence? And can it be developed, or is it genetic?

EMOTIONAL INTELLIGENCE IN DEPTH

There are four major components to EI: self-awareness, self-management, social awareness, and relationship management. Each of these, in turn, consists of a number of subcomponents.

Self-Awareness

- *Emotional self-awareness.* Leaders who have high emotional self-awareness are in tune with their inner emotions and understand how their feelings affect their job performance. They are aware of their guiding values

and are candid and authentic, able to speak openly about their emotions or with conviction about their guiding vision.

- *Accurate self-assessment.* Leaders need to know their strengths and limitations. These individuals usually have a sense of humor about themselves and welcome constructive feedback.
- *Self-confidence.* When they have an accurate assessment of their abilities, leaders can play to their strengths. They often have a presence that makes them stand out in a group.

Self-Management

- *Self-control.* Leaders with emotional self-control manage their disturbing emotions, even channeling them in useful ways. This is exemplified by the leader who stays calm and clear-headed during a crisis or high-stress situation. This was the hallmark of Churchill and Giuliani during their trying situations.
- *Transparency.* Leaders who are transparent live their values. They are open and candid with others about their feelings, beliefs, and actions. They readily admit their mistakes or faults and confront unethical behavior in others.
- *Adaptability.* Such leaders are able to juggle multiple demands without losing focus or energy, and are able to "roll with the punches."
- *Achievement.* Leaders with this strength have high personal standards that drive them to continually seek ways to improve—both for themselves and their followers. They are constantly learning and teaching others ways to do things better.
- *Initiative.* Individuals who have this quality don't wait to be told. They take control and cut through red tape when they see an opportunity.

- *Optimism.* Leaders with optimism are characterized by seeing the glass as "half-full" instead of "half-empty." Their optimism is genuine, however, and they tend to see others positively, expecting the best of them.

Social Awareness

- *Empathy.* Empathic leaders are able to sense a wide range of emotional signals in an individual or group. They are able to get along well with people of diverse backgrounds or cultures. And they are able to respond to the signals they pick up in ways that let people know they really understand them.
- *Organizational awareness.* Leaders with high social awareness are able to read the political climate of the organization, to detect critical social networks, and to read key power relationships.
- *Service.* Individuals with this competence are service-minded and monitor customer satisfaction to ensure that customers are getting what they need.

Relationship Management

- *Inspiration.* Leaders who can inspire others with a compelling vision tend to "walk the talk," and offer a sense of common purpose beyond the day-to-day tasks, thus making work exciting.
- *Influence.* Leaders adept in influence are persuasive and engaging when they address a group. They are able to find just the right appeal for a given listener as well, and build support for their initiatives.
- *Developing others.* This is the central trait of the natural coach. They show a genuine interest in those they are helping, understanding their goals, strengths, and weaknesses.
- *Change catalyst.* Leaders who act as catalysts recognize when change is needed. They challenge the status quo

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and act as champions for a new order. You will remember that this was one of the practices discovered by Kouzes and Posner in their research on leadership.

- *Conflict management.* The difference between conflict management and conflict resolution is that one manages conflict by actually drawing out different perspectives while preventing such differences from becoming interpersonal and divisive. In conflict resolution, you listen to differences that exist, and then you help the parties reach common ground and develop a mutually acceptable solution. Good leaders need to be able to do both.
- *Teamwork and collaboration.* Leaders who are good team players are able to draw others into active, enthusiastic commitment to a collective effort. They spend time developing and cementing close relationships beyond mere work obligations.

As you can see, 18 subcomponents combine to make up EI. Does this mean that an effective leader will be equally proficient at all of them? Hardly. No individual is likely to be that broadly competent. However, Goleman argues that they must have some degree of skill in many of them, and empathy tends to be very high on the list of competencies that one needs. The "clueless" leader is unlikely to build close relationships, inspire a compelling vision, or understand his or her impact on others.

LEADERSHIP STYLES—AGAIN!

There seem to be more leadership styles than there are people who write on the topic, and that is a lot! However, on close scrutiny, you begin to see that there is considerable overlap, which there should be if the research is valid. It is just that each author chooses different labels to convey his or her idea of the research findings.

Goleman and his partners have identified six styles of leadership that have clear relationships to others that you have seen earlier in this book. Before introducing them, I should mention that

Goleman has said that effective leaders create *resonance* with their followers, whereas those who are ineffective create *dissonance*. Obviously, resonance is a state in which people are energized by a leader, while dissonance would be the opposite.

Four of Goleman's styles create the kind of resonance that boosts performance. These are visionary, coaching, affiliative, and democratic. Two other styles can be useful, but if the leader is not careful, they create dissonance. These are pacesetting and commanding.

Again, these conclusions are based on a study of 3,871 executives. "Results showed that, all other things being equal, leaders who used styles with a positive emotional impact saw decidedly better financial returns than those who did not" (Goleman, et al, 2002, p. 54). In addition, the findings showed that effective leaders practiced several of these styles, rather than just a single one. In fact, the style chosen depended on the situation.

The Visionary Leader

The visionary leader moves people toward shared dreams. This is, in fact, what many of us think of when we think of true leadership—the individual who inspires us to pursue some lofty future outcome. It is Mulally's compelling vision—the 777 that goes from "Denver to Honolulu on a hot day." It is Martin Luther King's "I Have a Dream" speech, which may be one of the most famous delivered in the 20th century. The visionary leader has the most strongly positive effect on the climate of an organization. This style is most appropriate when a clear direction is needed or when changes in the environment require a company to develop a new vision.

Goleman and his colleagues caution that the style doesn't work in every situation, however. It fails when a leader is working with a team of experts who are more experienced than he. In such a situation, a leader who expounds a grand vision may be viewed as pompous or simply out of step with the agenda.

Nevertheless, the visionary approach should be used more often than not.

The Coaching Style

Although most people believe that every leader should be a good coach, leaders actually tend to adopt this approach least often. The excuse is that they simply don't have time to work one-on-one with followers. In failing to adopt this style, however, they miss a great opportunity.

Coaching conveys a genuine interest in people, as opposed to just seeing them as tools. It generates a very positive climate, and ultimately affects the *bottom line* positively, even though its thrust is on personal development.

The coaching style succeeds in part by helping individuals identify their strengths and weaknesses, and then tying those to their personal and career aspirations. This ultimately causes employees to gravitate toward the aspects of the job that they like most, which keeps them motivated, which, in turn, yields high performance. As a part of this, coaches are good at delegating—giving employees challenging assignments that stretch them, rather than tasks that simply get the job done.

Coaching doesn't work with all employees, of course. It works best with those who show initiative and want more professional development. It will fail with those who lack motivation or who need excessive hand-holding, or when the leader does not have the expertise needed to help the person along. When executed poorly, it smacks of micro-managing, which many employees resent.

The Affiliative Style: Relationship Building

Leaders who practice the affiliative style tend to value people and their feelings. They place less emphasis on goals and tasks and more on employees' emotional needs. This style is limited as a driver of performance, but it has a very positive impact on a group's climate, which indirectly pushes performance upward. Most importantly, affiliative leaders build extremely high loyalty to the organization. This means that they are likely to retain talent even when other organizations may be losing it.

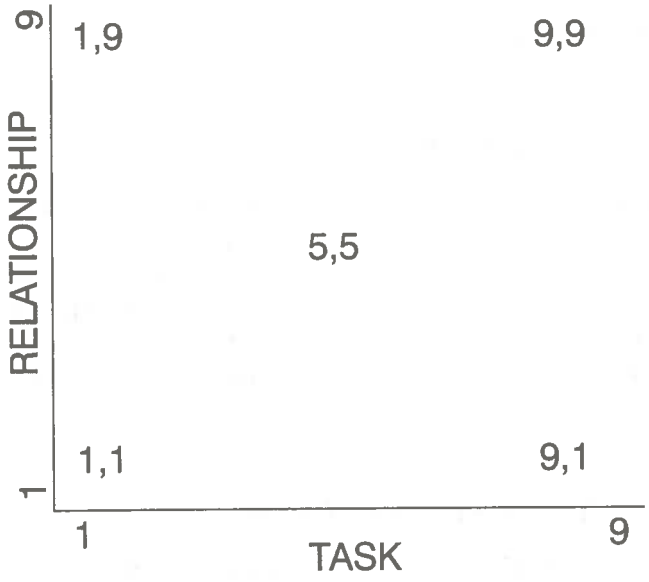

Figure 12.1.
The Blake and Mouton Grid®.

This style is the one to use when you need to build team cohesiveness, increase morale, improve communication, or repair broken trust in an organization. It is also an important style to use when dealing with Asian or Latin American individuals or groups, for whom building strong relationships is a prerequisite for doing business.

The caveat here is that the affiliative style cannot be the only style a leader adopts or nothing will get done. This is the "country club" style discussed by Robert Blake and Jane Mouton in their book, *Managerial Grid* (1964). In this book, they map several styles of leadership on a grid that indicates a manager's concern for task and concern for relationship with followers, with the axes being graduated from 1 to 9 points. A 9-9 style is high concern for task and high concern for relationship, which Blake and Mouton suggested is optimal for a leader (see Figure 12.1). A 1-9 style would be low concern for task and high concern for relationships, which is the country club style. As they suggested, a group run exclusively in this manner will report very high degrees of satisfaction with relationships but probably won't get much done.

The Democratic Style

This style works best when the leader is unsure what direction to take and needs input from competent employees. However, if such input never results in any kind of action, the democratic style backfires. Notice also that you seek the advice of employees when they are informed and competent. The democratic style *is not* appropriate in times of crisis, when the situation demands immediate decisions.

Pacesetting: Use Sparingly

This style is more likely to create dissonance than resonance, so it should be used with caution. Still, there are times that call for it. During the entrepreneurial phase of a company's life, it is appropriate. It also works for a group when members are highly motivated, competent, and need little direction. Pacesetting is very goal directed, driving employees to achieve high levels of performance. However, it may be the 1 to 9 style of Blake and Mouton's grid, in which the only concern of the leader is for task and there is little or no concern for relationships.

A pacesetting leader may push so hard for results that employees are left feeling like pawns, resulting in dissonance. More often than not, pacesetting creates a bad work climate. While moderate pressure to achieve a deadline (for instance) can motivate, too much pressure may be debilitating. People lose sight of vision—which is energizing—and focus only on survival. At best, pacesetting should be a short-term style, used during crisis or situations that need a quick spurt of energy.

The Command Style

Commonly called the command-and-control style, once employed by the military, this style is seldom appropriate. The disaster situation is one time when it works. But even then it comes up short. Giuliani may have adopted some command-and-control stances

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following the September 11 attacks, but he took time to address the emotional concerns of people as well. He expressed his own sorrow and empathized with the American public. In doing so, his command-and-control approach most likely was seen as appropriate: Here was a man who was taking charge, supporting the search-and-rescue effort, directing resources to those places where they were needed.

In its extreme form, the command style becomes the SOB style. There are many accounts of leaders who have been highly effective using this style. However, when the peripheral effects of this style are examined, the command style usually comes up lacking. The turnaround CEO often adopts this style, and while such individuals may improve bottom-line results, the net result is to destroy the organization in many cases.

One such CEO turned around a hospital by laying off a percentage of the nursing staff, a move that cut costs and naturally improved the bottom line. However, it also reduced the capability of the hospital to give the required care to patients, leading to increased complaints from them. This also led to a loss of clients as people needing medical care went to a competitor. Ultimately, the CEO had to hire back most of the nurses he had dismissed, but he never understood that his style was the cause of the problem.

FLEXIBILITY—AGAIN

A central theme of the situational leadership model of Hersey and Blanchard is that a leader must have the flexibility to adopt any of the four styles (directing, consulting, participative, delegative) as the situation demands it. Goleman and his colleagues have found the same thing in reference to their six styles. "The more of the six styles a leader can deploy . . . the better. Leaders who have mastered four or more, our data suggest—especially the resonance-building styles—foster the very best climate and business performance (Goleman, et al, 2002, p. 85).

EMOTIONAL INTELLIGENCE AND THE HBDI

You will remember that the HBDI measures one's preference for thinking in certain ways, and that the C quadrant deals with thinking emotionally and interpersonally. Having a low score in this quadrant would suggest that a person has little preference for thinking about such issues. This would imply that the person may not show a high degree of empathy for others, may not spend much time building relationships, and might therefore show signs of low emotional intelligence in these areas.

What is important to remember, though, is that the measure is of preference, not ability. Through practice, a person can develop thinking skills in each of the four quadrants, and this is definitely in line with Goleman's claim that leaders can increase their EI. In fact, he says that most of us improve with age, though that does not always follow.

So, if you happen to score low in this quadrant, don't shoot yourself. Just put together a self-development plan to build your ability in the C quadrant.

I also believe that a high score in the D quadrant would suggest that you tend to be visionary, which is the most important and powerful of the resonance-building styles. However, if you have a high D-quadrant score and a low C-quadrant score, it may suggest that you are not able to sell your vision to your followers, due to a lack of empathy with them. Nevertheless, you can again compensate if you understand the area that must be addressed.

13

Credibility and Trust

No one will follow a person who is not trusted, and to be trusted, the leader must be credible in the eyes of a follower. When the designated leader lacks credibility, people may turn for guidance to someone else in the group whom they trust and respect. This means that the official leader may not be able to actually lead the team at all. To sum up, the leader must be viewed as having the right to lead, the qualifications to lead, and to be going in a direction that followers want to go in themselves.

You may think that one's position in the organization would be enough, but it is not. I have discussed the different kinds of power in Chapter 11. Position power is the power granted to an individual by the organization. Such power gives a manager the right to exercise sanctions over employees and to reward them monetarily (if the position is that of a department manager, for example), but

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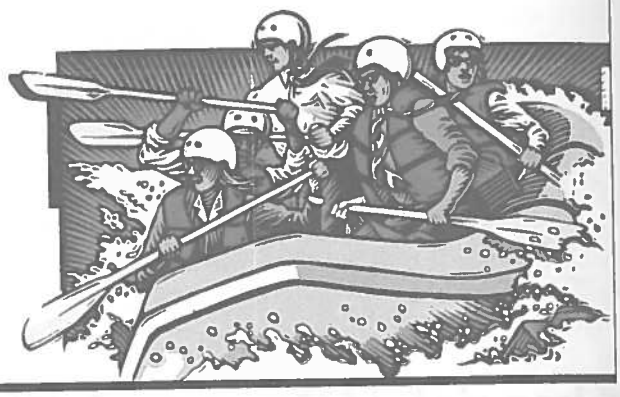
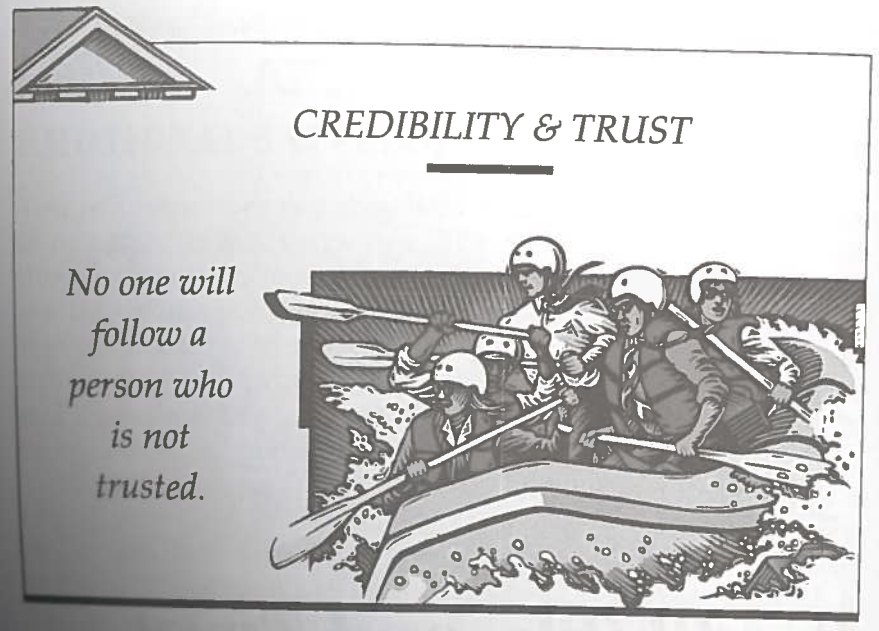


it does not confer status on the individual leader. Leadership is only granted by followers.

COMPONENTS OF CREDIBILITY

Many years ago, a young woman who had just graduated from college attended my seminar on project management. Shortly afterward, she was given a project to manage for which most of her team were located in another city, about 800 miles away. The team members were mostly very senior engineers, and she knew almost immediately that she had a problem. She had two strikes against her. She was young. And she was a woman. In addition, the distance presented a major obstacle because she was not present most of the time and was therefore not visible as a leader.

It was very clear to her that these older, more experienced engineers resented her, even though she herself was an engineer and a very competent one at that. So she told me that she made it very clear to them that she was not there to guide them technically. She was there to help them get the resources they needed to do their jobs. She would guide them in achieving the project mission, and



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she would buffer them from outside influences as best she could. In addition, she made a monthly trip to visit them, just to talk, ask questions, and show them support. It took some time, but eventually they accepted her and even respected her.

I am sure that, if we could have asked the team members about their concerns, there would have been several:

- Does she know what she is doing—especially in terms of our work? Does she understand the technical issues we face?
- How is she going to treat us? Is she going to direct us technically?
- She's just out of school. How can she possibly have the right to lead us? We're far more experienced. Why didn't the company pick one of us to lead this project?
- Does she even appreciate our expertise?
- Can she provide us with any rewards?

I also believe that these questions are on the minds of many people in project teams, unless they already know the project leader from previous experience. For that reason, a project leader has to address these concerns if he or she is to achieve a true leadership role with the team.

TECHNICAL TEAMS AND CREDIBILITY

I believe that leaders of technical teams face an especially hard time with credibility. In my experience, engineers and programmers tend to not respect leaders who lack technical skills, and believe that only another engineer or programmer should be the project leader. You will remember that I said in Chapter 1 that perceived differences make relationship-building difficult, while perceived similarities work to build relationships. So technical people sometimes think that if you are not "one of them," you can't understand their needs, you can't fully support them, and you won't be able to appreciate their contributions (which, remember, is

an essential behavior for an effective leader). And there is some truth in this.

In fact, I recently met an individual who is heading a group of Information systems people, and credibility with them has been almost impossible for him to develop because he has an undergraduate degree in physics and a master's in a liberal arts discipline. His technical undergraduate degree carries a small amount of weight with his group, but not much. Furthermore, he fired their beloved leader—who had a programming background—a move that certainly has won him no points with them.

It may be that he can position himself as the keeper of the vision, supplier of resources, and champion for their work, and thereby win them over, but he definitely can't do it based on technical expertise.

TRUST

Trust is another factor that requires that people see you as either similar to them or as understanding their needs and being willing to help them meet those needs. They must see a person as having integrity, as being honest, and as not being out to "get them." The person who is totally narcissistic, who only cares about achieving his own objectives, will be seen as untrustworthy. The person who lies, manipulates, who feigns interest in others while trying to simply further his own objectives will not be trusted.

Trust can take a long time to build and can be destroyed in a split second. Playing back-stabbing politics, for example, causes others to distrust a person who engages in this practice. They figure that they will be next, if they get in the way of the back-stabber.

Knowing that another person has cheated someone else, has committed a crime, or has questionable character leads to distrust. I have heard that "there is honor among thieves," meaning that a thief may steal from others but not a fellow thief. I just wonder if there is any thief who really believes that a "colleague" can be trusted.

EMOTIONAL INTELLIGENCE, CREDIBILITY, AND TRUST

One of the self-management components is transparency, which is an authentic openness to others about one's feelings, beliefs, and actions. Transparency allows a leader to be seen as having integrity, which means she can be trusted. Integrity keeps a person from acting on impulse—something she might later regret. It also means a leader lives her values; in the eyes of followers, she "walks the talk." One of the quickest ways for a leader to lose credibility is to say one thing and do another.

Relationship management is very important to a leader's credibility. Managing relationships boils down to handling other people's emotions. This requires that leaders be aware of their own emotions and have empathy for their followers. If a leader behaves manipulatively or feigns interest in people, they will sense this falseness and distrust the leader. This means that managing relationships successfully requires authenticity—acting from one's genuine feelings.

As I stated in Chapter 12, coaching is also a style that helps build trust in followers. By showing a personal interest in them, expressing a desire to help them further their own goals and career aspirations, a leader can gain trust and credibility. It may well be that the leader of the IS group mentioned above could gain trust through more one-on-one meetings with his followers, even though he is in no position to coach them technically. He is, however, able to coach them around career development, and this itself may be enough.

BUILDING CREDIBILITY

Every time I teach a seminar, my first task is to build credibility with my group. Recently I taught for a group that bordered on being openly hostile. When I got up in front of them and said, "Good morning," not a single person replied. I believe it was the first time in my 20 years of teaching that this has happened. Needless to say, I thought I was in for a horrible three days.

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So I started talking about the course and what we were going to do. I told them that there would be parts of it that some would say they would never use, and that for me, the goal was for them to find those parts that they could use. I also told them that seeing how to apply the methods in their own projects might be hard, and I promised to help in whatever way I could.

Then I told them about my background as an engineer (since these were technical people, that mattered). I told them that I had managed projects by the seat of the pants for about 10 years before receiving any formal training in the discipline, and that I could vouch for the improvement to be gained through a better approach.

I told them some survey data about the percentage of projects in their discipline that fail because of poor project management, showed how much those failures cost, and told them that with a small improvement they could get big gains. I shared several specific examples, using stories to capture their interest.

Then I asked them to introduce themselves. I asked that they tell me who they were, the job they did, and what objective they had for the class. "If you were sentenced to be here," I said, "you still may as well try to get something from the class." My line about being sentenced almost always gets a laugh—and it did, even from this group. It lets them know that I understand the reality of their situation, but that I am willing to have a little fun with it.

In fact, I set the stage for them to have some fun. As they introduced themselves, they referred to themselves as prisoners, but said that they could use some help. A few said they were willing prisoners. Overall, everyone had a laugh about the situation.

The laughter alone helped. Goleman and his colleagues have said that laughter is contagious. It offers a uniquely trustworthy sign of friendliness. So if you can get a group laughing early on, you can often win them over.

I next asked them to talk about their projects. I asked what was working and what was not. As they told me about these aspects of their jobs, I offered comments to validate what they were saying.

By the time I started teaching, there was a marked change in the climate of the group, and when I ended on the third day,

Accept NO "stale" workers

Offering training and new job opportunities benefits the company and the employee.

people were shaking my hand and telling me how good the program had been. Not everyone was equally satisfied, I'm sure, because you can't win over everyone. But the majority of them were with me.

I believe that several components of emotional intelligence help me do this. One is empathy. I do understand that people are busy and that being required to attend a seminar of questionable merit is an imposition some can hardly afford. Furthermore, there is an implication that if they need to attend this seminar, there is something wrong with them. They are broken in some way, and the boss intends to fix them. I even play on that with them and have some fun with it.

Overall, I try to frame the class as something that is going to make their lives better. I state my role as one of supporting them and helping them. I position the experience in as positive a light as is possible and go on from there. Like Jaime Escalante did with his students, I try to address their needs and show how we will meet them. All of this helps me win over a group that is less than enthusiastic about being there.

One interesting aspect of credibility for me is that my engineering background gives me credibility with technical people when I

am talking about psychological factors. I am sure that, if I only had a degree in psychology, they would see me as a touchy-feely "shrink," and would be unconvinced about the validity of what I am saying. However, I am "one of them," and I paid my dues "in the trenches," so they believe me. I tell them about problems I had dealing with my own followers—problems that they themselves are having, and they know that I know what they are facing. Then when I offer suggestions, they listen.

It is a fascinating subject, and one that a leader ignores to his or her own detriment.

2

Building of Memory: Managing Creativity Through Action

by Alexander Laufer, Zvi Ziklik, and Jeffrey Russell

Initial Stages: Making Progress by Splitting

Yad Vashem is a memorial site to the six million Jews killed by the Nazis. The 45-acre site located near Jerusalem contains several museums and various research and educational centers. The largest museum on site is the new Holocaust History Museum, which opened in March 2005. The architect of this museum, Moshe Safdie, who is a leading international designer, concludes his book *Yad Vashem—The Architecture of Memory* as follows:

> "No design I have ever undertaken was so charged with symbolic associations. It seemed that every move, form, shape, and sequence elicited multiple interpretations and endless debate. Now that the public has possessed the complex, I am amazed at the diversity of interpretations and reactions. When I am there, I often become a voyeur and watch visitors' reactions and listen to their conversations. I have always wondered if architecture is capable of evoking the same emotions that we experience listening to music. At Yad Vashem, I am constantly aware of how intensely personal the feelings provoked are and how individual

and particular. It is at these moments that I feel architecture can, however rarely, move us as deeply as music can."

Shimon Kornfeld, the project manager of the Holocaust History Museum, recalls another kind of music that prevailed when he was appointed to lead the project from the early stages of the design. Loud voices and even shouting were known to accompany the passionate and intense debates about the fundamental concepts of the design that constantly took place between the chief curator of the museum, Avner Shalev, and the architect Moshe Safdie.

Shimon was already an experienced project manager at the time and was used to internal conflicts in his project teams. Over the years, he had learned to appreciate such conflicts because of their eventual positive impact on the quality of the team's decisions. But this time was different. These conflicts often sounded more like a competition between two fierce opponents rather than a healthy debate between two members of the same team. Shimon was worried that such rivalry would hurt collaboration between the other members of the project team and that it would eventually hamper project progress. It was also difficult to reconcile diverging opinions in an analytical way because at this creative stage of the project, most decisions were based more on ideas and less on facts. Shimon realized that navigating between these two strong personalities and their respective teams would require a great deal of creativity on his own part as well.

It should be noted that both the chief curator and the architect enjoyed a unique and powerful status in the project. Avner, the chief curator, also served as chairman of the Yad Vashem Directorate of the Holocaust Martyrs' and Heroes' Remembrance Authority. That is, he was a member of the project team and head of the client organization at the same time. Safdie, who is regarded as a world renowned architect, had been awarded this project through an international competition, and his proposal had been selected by an independent committee composed of highly esteemed experts and public figures.

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Thus, Shimon, the project manager, could not have dealt with these two designers like he would have any other member of the project team. They were simply too powerful. Because of the nature of this project—remembering the Holocaust—both designers were totally committed to the success of the mission, but each one felt that the other side was somehow attempting to "own" the entire project. The concern on the curators' side was that the spectacular design of the building would be so dominant that it would stand by itself as a memorial and would overshadow the central role of the exhibitions. Ironically, therefore, the unique shape of Safdie's structure worrying the curators was the very reason that his design had been chosen.

The truth is that Shimon himself was also very concerned about the design of the structure:

> "The museum's central bloc was designed as a prism that penetrates into the ground and 'erupts' from it, at varying angles, as an unsupported protrusion. The walls of the prism envelope had a unique architectural design based on 'exposed concrete' elements with no external cladding or coating. We were worried that certain components of this unique and extraordinary monument might be impossible to execute."

The architect explained his radical demands:

> "I was determined to cast the entire museum monolithically, jointless, unadorned—without any exterior waterproofing or cladding or any interior insulation or finishes. I wanted just the basic structure—concrete walls and floors and glass to let the light in from above."

Thus, it is no surprise that Shimon came to the following conclusion: "The contractor will be required to 'sculpt' the concrete elements in order to realize the architect's wild dream." Shimon approached an expert in executing complex elements made of "architectural concrete" and asked him to examine the feasibility of executing the proposed design. The expert provided a list of recommendations to

render the execution more feasible, but only a few of his recommendations were accepted by Safdie.

Safdie reiterated his opinion that the project must be imparted with a unique character and that he himself, as well as other leading architects around the world, had designed buildings of similar character that had been successfully executed and that served as a source of inspiration and a place of pilgrimage. In an attempt to convince Shimon, Safdie suggested that they visit a few of these sites abroad. Undertaking this tour, however, did not alleviate Shimon's concerns: "On the tour, we saw structures that were amazing in their complexity, but the structure designed for Yad Vashem seemed to me to be more problematic than they were. I really did not know how one can build the external envelope of this unique building."

Even the director general of Yad Vashem, Ishai Amrami, was not fully satisfied with the design of the building: "During the project, I had some harsh arguments with Shimon and with Shimon's predecessor about the management of the design and particularly about our proceedings vis-á-vis Safdie. I felt that they avoided confrontations with the famous architect and in several cases, chose to 'sacrifice' the functionality of a certain area for the 'benefit' of an 'architectural whim.'" Still, despite some discomfort on the part of the client, the curators, and the project manager with some aspects of the design, the architect seemed to have the power and the determination to stick to his design.

Although the new Holocaust History museum was the heart of the new development at Yad Vashem, it was only one component of it. The project that Shimon was managing was much larger and covered additional buildings and infrastructure work throughout the Yad Vashem site. The cost of the entire project was estimated at 100 million dollars, but at that time only 45 million dollars had already been procured. Given that the estimated cost of the museum building was about 40 million dollars, Ishai requested that Shimon split the

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construction of the museum building from the rest of the project and issue the tender for it as early as possible:

> "I was aware that the design of the electrical, mechanical, and other systems in the building had not been completed. However, Yad Vashem finances all its projects from donations, and accelerating the beginning of construction was crucial for obtaining financing for the project. Potential donors tend to respond more favorably to our appeals when they can see real action on site and when the actual structure starts rising on the site."

Surprisingly, Shimon responded favorably to Ishai's request. Even with the difficulties of starting construction on the building before design of all the systems was complete, Shimon felt that creating a *fait accompli* would put a quicker end to the bitter conflict between the curators and the architect. Moreover, Shimon explained that decoupling the building of the museum from the rest of the project would allow him and his team to focus all their attention on execution of the most difficult component of the entire project, the one with the radical design and stringent requirements. Thus, the gap in needed resources and the splitting process unexpectedly turned out to be a huge help for Shimon, enabling him to cope better with the many unique challenges posed by execution of the design.

Middle Stages: Making Progress by Uniting

Shimon surprised Ishai again when he insisted on an unconventional process for selecting the contractor who would build the new museum. Yad Vashem, like most public organizations, generally chooses its contractors via the traditional process, in which any and all contractors are invited to submit their proposals, and the one with the least expensive proposal is the one selected for the job. That

was exactly what bothered Shimon. He was worried that for such an extremely complicated project, selecting the least expensive contractor rather than the most suitable one would not only severely compromise the quality of the product, but would lead to disastrous financial results:

> "It was very clear to me that not every contractor would be able to cope with the ambitious and intricate design of the building and its stringent and 'quality-based' requirements. As a matter of fact, I was sure that only a few contractors could meet these extremely radical demands. Moreover, I envisioned that the contractor would have to cope with endless changes during construction—changes because more than a few components in the architectural design were simply not feasible, and the architect refused to change them and changes because the design of the building systems was far from ready and would inevitably call for changes in the current design of the building. Also, the curators were still debating fundamental conceptual ideas regarding the design of the exhibitions, and it was clear that the late submission of their detail requirements would lead to additional changes in the design of the building. The chances that a contractor selected on the basis of cost alone would be able and willing to stay responsive to such a stream of changes and still maintain high-quality requirements would certainly be extremely low."

Shimon recommended that the client embrace an unconventional approach for selecting the contractor. According to this approach, various criteria for prequalifying the bidders would have to be met, and the winning contractor would be selected on the basis of multiple factors, not only the total cost of construction. He presented his ideas to the client, explained his rationale, and shared his successful past experience with unconventional approaches to selecting a contractor. Yet, the client preferred to stick to the traditional approach, primarily to avoid taking any risks. Shimon was fully aware that this

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unconventional approach was not free of risk and that he would be blamed in the case of failure.

Nevertheless, he was determined to reverse the decision:

> "After several fruitless meetings, I realized that more arguments would probably not help me change their minds. I decided to try a new approach by providing them with concrete evidence through observation. This required my finding a site where selecting the contractor based on cost alone was clearly detrimental. The search turned out to be very quick."

Shimon organized a visit to a nearby large construction site, the Ben-Gurion International Airport, and invited the client to join him. They met with site management and learned that all the contractors had been selected strictly on the basis of cost, which enabled many unqualified contractors to join the project. Many contractors had declared bankruptcy, with extremely negative outcomes for both project quality and schedule. Shimon had the satisfaction of getting approval for his unconventional approach from Yad Vashem's management, who were convinced of its virtues after observing firsthand the poor results of a project that had considered cost alone in selecting a contractor: "Where endless solid arguments in the office failed, one brief site visit did the trick. Apparently, seeing *is* believing."

The first tender to get underway was also the largest and most important one in the entire project—the tender for execution of the skeleton and structure envelope. The selected contractor was supposed to function as the "general contractor" for the project and coordinate the activities of the various electrical, mechanical, and other specialty contractors, who would be appointed later to work in parallel with the general contractor.

Shimon understood the pivotal role of selecting the general contractor: "I was of the opinion that selecting the right general contractor was by far the most important factor for the success of the project.

I was therefore determined not to err in this selection process, and I was prepared to invest every effort necessary to make it work."

Thus, Shimon carefully designated a three-stage selection process:

- **Preliminary screening:** Criteria included the bidders' financial robustness, experience with similar projects, recommendations from former clients, and a presentation by their proposed management team. Only those bidders who met the criteria continued on to the next stage.
- **Implementation test:** The bidders were required to present their proposed methodology for construction and to execute a sample mockup of the special concrete elements of the structure (a small model that included an exposed concrete wall, door, and window details).
- **Monetary bid:** Only those contractors who successfully passed the first two stages were granted the right to continue to the final stage and to submit their monetary bids.

Both the client and many of the competing contractors did not fully understand the purpose of the second stage, which is exactly why Shimon included it:

> "It was important to me to see whether the contractor was treating the project and the mockup as an important engineering challenge or just as a folly of the client's which could be changed later on. I knew that for this challenging project to be successful, the contractor would have to demonstrate an extremely high degree of competence, commitment, and flexibility. I also knew that the best way to learn about these attitudes and capabilities would be by observing the contractor in action."

Based on these criteria and after reviewing all of the proposals received, Shimon selected the company most likely to be awarded the job as contractor. However, beyond the selection of the contractor, it

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Based on these criteria and after reviewing all of the proposals received, Shimon selected the company most likely to be awarded the job as contractor. However, beyond the selection of the contractor, it

was important to him to participate in the determination of the contractor's management team as well. He selected Israel Chaskelevitch, the project manager proposed by one of the earlier bidders (whose offer had been rejected for financial reasons) as the person most suited to be project manager:

> "Israel was the same concrete specialist who we had approached in the initial stages of the project for a professional opinion as to the feasibility of the architectural design. At this early stage, he gave us feedback on the design as well as ideas for changes in the design to render it more implementable. I recalled that I was very impressed with his competency as well as with his creativity. I felt that I could rely on his professionalism, resourcefulness, and integrity. Based on my early and current impressions of Israel, I indicated to him that he should try to join the company that seemed to be the winner. At the same time, I applied pressure on the director of the company and informed him that his chances would increase if Israel were to be included in their team as project manager. To my delight, I got a positive response from the company. Apparently, at this stage, he was willing to agree to any request of ours as long as he was awarded the project."

Ishai, the Director General, was also concerned about the issue of staffing the contractor's management team and supported Shimon's intervention:

> "I had already failed in the past with large and promising contracting companies that chose to assign unsuitable project managers at the head of the pyramid. The project manager on behalf of the contractor must be a person with a 'head that doesn't stop working.' I fully trusted Shimon. I did not rush him, and I gave him a free hand in his efforts to shape the staffing of the contractor's management team."

The contractor's on-site preparations for the onset of the work brought into sharp focus another key problem: how to enable visitors

to continue touring the Yad VaShem site without affecting or being affected during the intensive construction activity. The original solution called for a step-wise execution of the museum complex, with relocation of the visitor access roads accordingly. Yet, realizing how taxing this solution would be on site management time and focus, a second solution was adopted. Two temporary overhead pedestrian entrance bridges were built, enabling visitors to come in 'above the construction.' Ishai explained that "this solution not only prevented safety hazards; it eventually saved the project a great deal of money and endless headaches."

Yet, Shimon's headaches were only just beginning:

> "Now that I was able to select a contractor and a project manager that fit the unique challenges of the project, I was supposed to be relaxed. However, I was not. With the ambitious architectural design, many building details remained unclear or were especially expensive to execute, and some were even impossible to execute. I did not have any doubt that we would have to cope with a stream of design changes during construction. I realized that we would be unable to provide the contractor with execution drawings for all the project areas, and I knew that entering into the execution stage in such a state would open the door to monetary claims by the contractor. But I was counting on Israel to refrain from abusing the situation."

For his part, Israel observed:

> "Shimon was in great distress due to the extensive design changes that the architects could not seem to stop introducing. I knew that I could easily confront Shimon and demand supplements to the contract for all those changes. Yet I decided not to do it, at least not for the moment. I tried to persuade the architect to change some especially complex and problematic execution details, but did not succeed. The architect suspected that I was trying, from the very beginning, to 'pull' the project in directions that were undesirable for the client and refused

to continue touring the Yad VaShem site without affecting or being affected during the intensive construction activity. The original solution called for a step-wise execution of the museum complex, with relocation of the visitor access roads accordingly. Yet, realizing how taxing this solution would be on site management time and focus, a second solution was adopted. Two temporary overhead pedestrian entrance bridges were built, enabling visitors to come in 'above the construction.' Ishai explained that "this solution not only prevented safety hazards; it eventually saved the project a great deal of money and endless headaches."

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Two camps were actually forming, with the designer on one side demanding absolute adherence to the original design regardless of whether it was at all feasible, while the contractor on the other side was adamant about his inability to execute many of the design details. In between the two was Shimon, the project manager, who was trying to reconcile both sides without compromising the project.

Israel himself was also looking for a creative way to put an end to the conflict:

> "I was debating as to how to help the architect off his high horse without offending him or damaging the project. I understood that in order to 'remain viable,' I had to make a move as soon as possible to gain the trust of both the architect and the client. I was constantly seeking creative ideas for alternative solutions that would protect the interests of all those involved—solutions that would not be inferior to the original design, but that would, at the same time, allow us to shorten the execution time and reduce the financial cost. I chose to first tackle the issue of the architectural concrete elements in the prism structure."

Thus, the prism design for the museum's central hall, which was to be cast entirely of special architectural concrete, was the first problem to put the architect's versatility to the test. Due to the massive quantity of concrete required, the contractor needed a very large number of special and expensive forms in order to execute the castings within the set time schedule. But, as Israel explains, even the most expensive forms did not yield a final product of the quality anticipated by the architect:

> "All of my attempts and efforts to find an applicable and economic solution for the prism's concrete elements were in vain. At that critical point in time, it was important for me to check the architect's willingness to compromise, and this time I was

ready to fight if my demands were rejected. After much exploration, I decided to request that the architect move from a conventional execution of the prism walls by on-site casting to a pre-cast execution. I proposed that the pre-cast elements be made separately at a makeshift factory and be assembled using joining bolts.

"In order to enable the architect to experience the proposed solution, I built a mockup of the proposed pre-cast solution. The joining bolts that protruded from the pre-cast panels initially bothered the architect. After a week of deliberation, however, the bolts started to grow on him and he even became 'enamored' with the solution. Finally, my proposed solution was unanimously approved by the architect, the client, and the project manager.

"We all benefited from the change. The client benefited from a shorter execution time; the project manager benefited from easier on-site supervision made possible by the simple pre-cast execution; the architect benefited professionally from adopting the solution (several months later, he presented this solution at an international architecture conference); and we all benefited from saving a great deal on expenses."

The contractor's success in persuading the architect, at this early stage of the project, to agree to such a fundamental change in the execution details of the prism walls was a kind of "decisive event" in the project in terms of developing a trust-based relationship between the contractor, the architect, and the client. Israel took this success and ran with it:

"The successful solution for the execution of the prism's architectural concrete elements made me try and dare again, this time with respect to the synagogue building. The circumferential concrete wall of the main prayer hall was originally designed to be executed in a unique conic manner. Despite our

ready to fight if my demands were rejected. After much exploration, I decided to request that the architect move from a conventional execution of the prism walls by on-site casting to a pre-cast execution. I proposed that the pre-cast elements be made separately at a makeshift factory and be assembled using joining bolts.

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many efforts, we could not succeed in casting this concrete element at the required level of quality. I proposed to the client to change the design and substitute the concrete wall with a drywall-clad steel structure, the final result of which would be identical in shape to the original concrete wall design. To my delight, the architect again agreed to my proposal after being convinced that his original design simply could not be executed. Again, all of the parties benefited from my proposed solution, since I agreed to significantly decrease the unit price on this item following the change in execution method."

The concrete work took about a year and involved 240 different castings. Throughout construction, several mockups, some full-scale, were tested to make sure that the casting process and concrete quality met specifications. Israel recalls the difficult environmental constraints of the work:

"We had to embrace a mindset of 'versatile' formwork. For example, we had to build a scaffold system up to 80 feet high to support the cantilever over the forest and access road during construction. We had to work above the Jerusalem forest without damaging it, and we were allowed to cut down only three trees."

Another example of the contractor's creative thinking that eventually led to a brilliant solution was seen in the Hall of Names, situated at the heart of the museum. In this hallowed hall, the names of all the communities annihilated in the Holocaust are commemorated on the peripheral walls. The architect treated this room with the appropriate reverence, and the complex itself was designed as an architectural focal point of extreme importance. In the middle of the floor, there would be a deep conic well whose walls were to be made of special architectural concrete castings. The well walls were to be illuminated with special lighting, and so the execution had to be meticulous and the joints between casting interruptions had to be highly accurate.

However, Israel again anticipated problems with executing the design:

> "In my opinion, it was impossible to execute the concrete walls at the depth of the conic well according to the architect's design. Even had we gone to extreme lengths, we would not have achieved the required accuracy. I proposed an original solution: to carefully excavate the conic well in the rock and leave it in its natural form, without the concrete cladding. The proposed solution initially led to serious arguments with the architect, but the final result, after the peripheral lighting was completed, was so impressive that the client and architect not only approved the solution, but also thanked us for our initiative."

If at the beginning of the journey, the architect and client had been reserved and suspected that the contractor's primary purpose was to find shortcuts and cut costs, Israel managed to win their favor after proving himself to be part of the solution rather than part of the problem. Cooperation and mutual trust continued to increase as work on the project progressed.

Shimon was thrilled with Israel's contribution to the project:

> "Early on, I worked tirelessly to ensure that the prequalification process would help us to select a contractor high in competence, commitment, and flexibility. We were very lucky and got them all. Israel excelled in that he managed to identify the architectural design problems and, in parallel, present us with proposals for their solution. He invested time and money in finding practical solutions, which were often crucial for transforming challenging design concepts into reality. I felt that the brilliant solutions Israel proposed were considerate of the architect's extreme sensitivity about the unique design and at the same time met the client's expectations regarding the quality of the final product."

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Safdie himself praised the contractor's commitment and creativity:

> "It would take many experiments, mockups, novel engineering techniques, and a dedicated contractor to realize the building. The stainless-steel buttons that conceal the post-tensioning anchors at both ends of the prism are visual testimony of the ingenuity involved."

Final Stages: Making Progress Through Versatility

Avner Shalev, the chief curator of the Holocaust History Museum, describes the underlying concept for the design of the exhibition:

> "My starting point and basic assumption was that as the years advanced, individual mourning would dissipate, the feeling of severed limbs would become dulled, and the memory of the Holocaust would become like that of any other historical event. In order to prevent this drift and enable future generations to connect to a memory with inherent significance for their identity and values, a memory with the capacity to shape the future, I realized that we would have to place educational work at the center of our endeavors."

The group of curators embraced this vision and developed a very ambitious and innovative objective: educating the young generation by personalizing the abstract concept of the Holocaust. Thus, unlike the exhibition in the old museum at Yad Vashem, which was primarily composed of photographs, the new exhibition would be composed of a multimedia presentation incorporating personal artifacts. It was designed to span 10 exhibition halls, each devoted to a different chapter in the history of the Holocaust. The exhibits would be set up chronologically, with the testimonies and artifacts accentuating the individual stories. All together, the museum would present

the personal stories of 90 Holocaust victims and survivors and would include approximately 2,500 personal items, such as artwork and letters.

The curators focused on preparations of the various exhibits, and only on them. They behaved as if there were two different and quite independent projects: the building and the exhibitions. As a result, they treated the exhibitions as a 'once in a lifetime project' without any regard for time constraints in their decision-making process. It did not take Shimon long to realize that the curators did not care much about the project schedule, even though he needed their timely input in order to maintain construction progress:

> "Infrastructure preparations for the exhibitions and displays required joint teamwork between the exhibition curators and the construction designers, since various kinds of piping (electricity, lighting, communications, computers, security, etc.) had to be passed through the structure's floors and walls. The piping had to be positioned in its final locations in the forms before the walls and floors were cast; otherwise, excavation or sawing of the concrete would be required. But the curators wished to maintain as much flexibility as possible in light of the fact that the exhibition program was still being worked on."

However, as the project advanced, the flexibility and degree of freedom remaining for the curators gradually declined. Before each of the critical stages (casting of walls and floor, closing of roof openings, tiling of floor, and so on), the struggle between the curators and the project manager flared up anew. As Shimon recalls:

> "I tried to leave the curators enough time to make decisions right up until close to casting time of the various concrete elements, when I had to get the data and force a decision."

Just leaving the curators enough time, however, was not always enough. When Israel, the contractor, realized that some of the curators had difficulty in reading architectural drawings, he took the

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initiative to assist them. Shimon describes how Israel's versatility contributed to expediting their decision making:

> "Some of the curators did not understand the complicated design of the spaces designated for the exhibitions. In order to help the curators familiarize themselves with the relevant spaces, Israel prepared computerized simulations as well as 1:1 mockups made of wooden boards and geotechnical fabric. These models clarified, in a tangible manner, the joining of the portable partitions, the hanging of the pictures, the hanging alternatives of the lighting fixtures, and so on."

Ishai, the director general, highlights another example in which Israel went out of his way to help the curators:

> "One of the spaces in the exhibition area was designated for a re-creation of the death train that transported victims to the gas chambers. I was not really clear on what the curators wanted to create in this space, and it seemed to me that it was not clear enough to them either. The contractor decided to take the initiative and, early on, proposed to bring the original train car and tracks and display them so that their true dimensions could be experienced. The effect of the physical model was especially great, and it enabled the curators to reach timely decisions regarding the design of this sensitive space."

Israel's commitment to the success of the entire project, of serving the needs of the client, was again demonstrated in the conflict between the curators and the architect over lighting. The architect, striving toward controlled and constant lighting, had designed the structure's envelope so as to allow only a minimal amount of natural light to penetrate into the interior spaces. The curators, on the other hand, were interested in installing large skylights in order to get as close as possible to the natural state in which light, with all of its variability, penetrates into the structure throughout the entire day.

However, this time, Israel decided that the best way to expedite progress would be to wait:

> "The issue of the skylights troubled me greatly. I had in my possession supposedly approved execution plans, and I could have gone ahead and ordered all of the special glass components. I was witness to the vigorous and incessant confrontations between the architect and the curators regarding the desired amount of light, and it was clear to me that if I progressed with my approved plans, I might 'trip up' the client. I preferred to wait with the execution, and this ended up saving the client a lot of money since the design of the skylights changed drastically later on."

Ishai noted that: "One can't overemphasize the extreme importance of the teamwork between Shimon, Israel, and me for overcoming or eliminating problems, and eventually for the success of the entire project." However, when it was time to begin the finishing work in the exhibition areas (including multimedia, construction of displays, acoustic ceilings, and other special infrastructure elements), the curators persuaded Ishai to entrust this activity to their exclusive care, releasing the project manager from any involvement. Under pressure from the curators, the client informed Shimon that he would be taking this issue upon himself and did not require Shimon's services.

This time, due to the unique stage of the project, Shimon did not put up any resistance and respected the client's decision. The utmost commitment and intensive involvement of the curators was required for the finishing work, and Shimon felt that without the client's support, he was not in a position to impose his own participation on them:

> "It was clear that at this stage, Ishai could not overcome the curators. Thus, I did not object to Ishai's suggestion to leave the responsibility for the finishing work in the exhibition areas in their hands."

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After about two months of status quo in this matter, Shimon realized that the client was having difficulties making decisions. The issue of the construction of displays had become critical and was starting to delay the envelope contractor of the building:

> "Only after I explained the grave situation into which we had got ourselves to Ishai, did he manage, after much effort, to persuade the curators to transfer this area of responsibility over to Israel and so, in fact, opened up the bottleneck that had formed."

After the problem of the construction of displays in the exhibition areas was solved, Ishai continued to manage the other components of finishing work. When another four months had passed and the work was still not progressing according to schedule, Shimon warned Ishai that the execution of the elements was moving slowly and in an uncontrolled manner. In the end, the client finally decided to entrust Shimon with the responsibility for managing the unique elements and the area of multimedia.

The outstanding versatility and commitment to the success of the project on the part of the execution team paid off. On March 15, 2005, the dedication of the new Yad Vashem Holocaust History Museum in Jerusalem, Israel took place, with leaders from 40 countries attending the inauguration. Glowing reviews applauded "the supportive and complementary relationship between the architectural dimension and the exhibition design." Another remarked on the fact that "the collaboration and counterpoint between curatorship and architectural design remain admirably balanced and harmonious."

Shimon reflects on the long process to completion:

> "The visitor sees the end result, the harmony, the music that Safdie was talking about in his book, unaware that it all started with an extremely noisy and squeaky music of endless shouting and conflict. It appears that the two designers, the architect and the curators, must have worked together in great harmony all

along, when in fact this transformation was accomplished only through the constant dance between ideas and action. It was the ingenuity, and indeed the creativity, of the implementers, who enabled each creative entity to flourish and nurtured the fusion of the two separate disciplines into a united and eternal cradle of memory."