

TRANSFORMING CULTURE

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CREATING AND SUSTAINING A BETTER MANUFACTURING ORGANIZATION

Elizabeth K. Briody, Robert T. Trotter II, and Tracy L. Meerwarth

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Elizabeth dedicates this book to Marc Robinson
for his wisdom, support, and love.

Bob dedicates this book to Sally Trotter for all of her encouragement
and support over the years, to his kids (Hara, Talbot, David, and Rayne)
for the stimulus and excitement they have given in their lives, and to
his colleagues and friends for interesting times and valuable
opportunities in the overall scheme of things.

Tracy dedicates this book to the men and women at the
stamping plant that allowed her to learn from their stories.

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PREFACE

The auto industry of the last thirty years has not been for the faint of heart. The U.S. domestic industry, in particular, has been in continuous transformation for most of that time period. The modern auto business is one of the few truly global industries. Today, there are more similarities than differences in the product designs, materials used, and processes of manufacture among the global competitors. Yet, significant differences are found in the various results of each. Success is difficult and eludes many.

I began working in the car business as a young engineer over three decades ago. As I prepare to retire from a senior leadership position at General Motors (GM), I look back on a career that never lacked for challenges and opportunities. I come from a family of autoworkers. My father was an hourly employee who provided for his family by working in the factory every day for over forty years. My first engineering assignments started on those same factory floors. My extensive plant experience has given me a unique perspective from which to consider the waves of change that buffet the domestic automakers. I have seen incredible acts of initiative and selfless contributions from hundreds of employees like my father. The value of their conscientious acts could be counted into the many millions of dollars. Yet I have seen firsthand the errors and acts of waste of demotivated workers as well. Both groups entered the work force to do their very best. At one time, they all shared the same excitement and sense of wonder at how cars and trucks are produced. Yet, somewhere along the way, that excitement was lost for some and replaced with boredom, apathy, and—at times—resentment. Like my colleagues, I have read much on manufacturing and workers. Some of what I have read has been insightful. Much of it is of little use to the supervisor or manager on the front lines of the factory floor attempting to deal with these circumstances.

The Lansing Delta Township facility is GM's newest American assembly plant at the time of this writing. The location, building,

facilities, and tools represent the latest manufacturing technology from around the world. Yet the work force is men and women from a combination of several older and closed facilities in central Michigan. It is a work force from one of the most strongly unionized areas of the country. During a routine review of the project, a simple question was asked: What's the plan for the people? We had spent hours reviewing details related to the physical attributes of the plant but much less time on the preparations related to the readiness of the work force. All present at the review recognized that the men and women who would someday staff the facility were the real key to success of this billion-dollar investment. Future meetings would review reporting relationships and team sizes, as well as other metrics, but how would we prepare the people to work together? How would we create a culture of world-class safety, quality, and productivity?

The answer would come from the unlikely source of cultural anthropology in the person of a dedicated scientist from GM Research. In addition to the best practices found in management texts, the study brought to our effort a process that created learning events from the very problems and issues that we hoped to avoid. These events, often unseen, can sow the seeds of future distrust and disruption and—ultimately—demotivate portions of the work force. This effort has generated a set of lessons and tools that continue to grow and bear fruit. When I began my career as a manufacturing engineer, I had a keen interest in understanding how to reliably reproduce a particular result or product. I am grateful to Dr. Elizabeth Briody not only for her contribution to the successful launch of a world-class manufacturing team but also for her documentation of these efforts in such a way that others can reproduce these results to the benefit of the teams of which they are a part.

Troy A. Clarke
President of GM North America
September 13, 2009

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Many people played a role in the publication of this book. We are extremely grateful to GM for its financial and technical support of this research program for six years. We also thank the people of GM. Over 400 employees shared their time, their stories, and their experiences with us so that we could understand their views of manufacturing culture—past and present—and their expressed hopes for the future. This book is their book as much as it is ours. It is their story of life on the plant floor and of cultural transformation that we did our best to capture. For confidentiality reasons, we do not reveal their names.

The idea for the project, originating with Steve Holland at GM Research and Development (R&D), was quickly supported by other managers at R&D including Alan Taub, Jan Aase, and Tom Seder. Support grew within GM's manufacturing organization, with Troy Clarke serving as the original project sponsor, executive advisor, and, ultimately, manuscript reviewer. His global perspective and his manufacturing background positioned him to add considerable value to the final product. Randy Thayer, who became plant manager of GM's newest U.S. assembly plant, Lansing Delta Township, was an ongoing source of support for our work. His interest in innovation and plant culture predated the plant's construction, continued through the plant's successful start-up, and was maintained long after our research group reported its results and delivered the tools. He and his Joint Leadership Team worked tirelessly with us to refine our ideas and develop and validate customized applications to help build and maintain a collaborative plant culture. Local union leaders Art Luna and Steve Bramos were an integral part of Randy Thayer's team, as were plant Quality Network leaders; in particular, Don A. Smith and Mark Strolle were always available to answer our questions and offer insights into emerging cultural patterns. GM's Global Manufacturing System employees, working directly with the manufacturing plants, acted as advocates for the project. We especially appreciated the interest and perspectives offered by Gerry Knesek, John Ciupak, and Chris Turner.

Several senior manufacturing executives provided assistance and guidance in disseminating project results in GM's U.S. facilities and in sponsoring the pilot testing of the tools we developed. They included Larry Zahner, Joe Ponce, Bill Boggs, Arvin Jones, Jim DeLuca, Joe Spielman, and Gary Cowger. The project was supported by Greg Fedak, Mike Hall, and John Bussineau of the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW)-GM Quality Network. Several GM employees, including Karen Sutton, Matt Albee, Sharon Zielinski, Mark Beltramo, Tom Schenk, and Jeff O'Neal helped in the identification or compilation of documentary data and/or library support services. We were very grateful for their assistance.

A number of researchers worked with us during the research, validation, analysis, and applications-development phases of the project. Gülcin Sengir, a computer scientist by training, adapted quickly to the world of anthropological fieldwork. Her perspective and modeling efforts led to the creation of the Ideal Cultural Model, which became a core element of the study. Linda Catlin, an experienced consulting anthropologist (Claymore Associates, Inc.), also participated fully in the fieldwork. Her skill in facilitating discussions with manufacturing leaders, while offering insights from a variety of field projects in which she had been involved, always proved highly relevant and useful. Emily Altimare contributed her expertise in anthropology during the pilot-testing phase of the study and in the testing phase of the *Explore-PlantCulture* computer game. She also built on our research to design her own dissertation fieldwork at the Lansing Delta Township plant. Lee Ridenour adapted some of our tools for additional testing as part of his honor's thesis. Wolf Gumerman, Honors Director for Northern Arizona University and a fellow anthropologist, documented and chronicled parts of the Ideal Plant Culture project for dissemination to the American Anthropological Association. He also contributed to our understanding of the culture through his photographs and videos and his excellent questions about working within GM culture.

The artwork for the book's cover was done by Perry Kuey. He also used his artistic style to design all of the graphic illustrations. The photograph on the cover was taken by Linda Johnson. George Dan Pirvu, the patient and creative developer of the *ExplorePlantCulture* computer game, created the computer graphics screenshot.

On a personal note, Elizabeth Briody would like to thank some special people who have been great sources of support for her. Her husband, Marc Robinson, played an important role in the book. He offered many technical contributions, including a broad economic

and strategy perspective that helped situate the findings within a broader context. He provided insights on the perspective over time of both GM management and the UAW. He offered editorial advice and encouragement and adapted his schedule, as much as possible, to the book's pace. Their children, Andrew, Kathleen, and Anton Robinson, understood the importance of the project and helped out in many ways. Urszula Wawer easily and cheerfully took on many of the Robinson household and childcare responsibilities during the writing phase of the book. Two other individuals deserve special recognition for what they personally taught Elizabeth about the importance of collaboration. Both Ina Rosenthal-Urey, professor emeritus of anthropology at Wheaton College, Norton, Massachusetts, and Bob Frosch, retired vice president of the GM Research Labs, modeled a collaborative research style that became the basis of the way in which the Ideal Plant Culture research group worked with each other and with those who participated in the study.

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ABOUT THE AUTHORS

Elizabeth K. Briody, PhD, is a cultural anthropologist who has been engaged in cultural change efforts for over twenty-five years. She founded Cultural Keys LLC, a consulting firm specializing in improving work culture, increasing partnership effectiveness, and enhancing health care satisfaction. Her projects have included improving health care integration and the effectiveness of research partnerships, technology transfer, and joint product development. She recently edited and contributed to *Partnering for Organizational Performance* with Robert T. Trotter, II (Rowman & Littlefield, 2008). Much of her career was spent at GM R&D where her most recent position was Technical Fellow. She is an adjunct professor at Michigan State University, Northern Arizona University, and Wayne State University. She is past president of the National Association for the Practice of Anthropology, a section of the American Anthropological Association.

Robert T. Trotter II, PhD, is an Arizona Regents' Professor and current chair of the Anthropology Department at Northern Arizona University. His research interests include cross-cultural–health care issues, organizational models for change, social networks and social structures, innovation and cultural models, exploring advanced ethnographic methods, and applied anthropology. He is the coeditor of *Partnering for Organizational Performance* with Elizabeth K. Briody and coauthor of *Ethics for Anthropological Research and Practice* with Linda M. Whiteford (Waveland, 2008). He has conducted applied anthropological research for GM, the World Health Organization, the Centers for Disease Control and Prevention, the National Institutes of Health, and the Surgeon General's Office of HIV/AIDS Policy.

Tracy L. Meerwarth, MA, is a Corporate Officer at Consolidated Bearings Co., Cedar Knolls, New Jersey. She worked at GM R&D from 2001 through 2008, prior to which she received her MA in applied anthropology from Northern Arizona University with an emphasis on organizational studies. She applied her interests in cultural modeling,

and cognitive and symbolic anthropology to various projects at GM, including collaboration and workspace studies. She and her coinventors hold a U.S. and international patent entitled, “System and Model for Performance Value Based Collaborative Relationships” (U.S. Patent No. 7,280,977, October 9, 2007). She is coeditor of *Mobile Work, Mobile Lives: Cultural Accounts of Lived Experiences* with Julia C. Gluesing and Brigitte Jordan (Blackwell, 2008).