



A Century of Innovation: Twenty Engineering Achievements that Transformed our Lives

By Bob Somerville, George Constable

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As the world eagerly looked forward to the dawn of a new millennium, the turning of the calendar also represented an opportunity to pause and reflect on the tremendous ingenuity and invention that marked the previous hundred years. Electricity, automobiles, telephones, radio, television, computersâ€" these are a just a few of the innovations the decades had introduced â€" all compliments of the worldâ€™s engineers.

Celebrating a century of innovation, the National Academy of Engineering and a consortium of professional engineering societies present the most significant engineering triumphs of the era. While the achievements encompass many dramatic and highly visible engineering feats, from the first flight at Kitty Hawk to the birth of the Internet, the lineup is largely composed of more commonplace advances that had a truly profound and widespread effect on all of society. Indeed, most of the achievements profiled in this book are so much a part of our lives that we have come to take them for granted. But to learn the stories behind these great achievements is to behold and appreciate them anew.

Topping the list is electrification. More than half of the â€œTop 20â€ would not have been possible without it. Abundant and available electric power helped spur Americaâ€™s economic development and distributed benefits widely, from cities to farms. This achievement clearly shines as an example of how engineering has changed the world.

But often we take the likes of air conditioning and refrigeration for granted even though they have significantly improved our sense of comfort and contributed to our physical health, giving us the ability to transport and extend the shelf life of food. Radio and television are so much more than mere entertainment devices. Indeed, they have changed the way we view the world and our place in it. The telephone has made the whole planet a smaller but much more connected place for all of us. And underlying and enabling many of these technologies is the computer â€" from room-sized super computers to palm-sized devices.

Each chapter tells the life story of a specific engineering achievement. Each

chapter also features a personal reflection by a notable engineer involved with the achievement. Among them: Bill Gates, who brought the personal computer into our home; Charles Townes, inventor of the laser; Robert Kahn, one of the originators of the Internet; Bill Anders, the Apollo 8 astronaut who took the famous "Earthrise" photograph while in lunar orbit; and Wilson Greatbatch, inventor of the pacemaker. The engineers' commentaries capture the excitement, imagination, vision, and tenacity that ultimately made each achievement a reality. Timelines trace the evolution of the achievements while dramatic illustrations depict how things actually work. Replete with photographs and drawings, the drama of invention and discovery is brought vividly to life.

More than a simple tally of engineering achievements, *A Century of Innovation* is proof positive that the genius and the talent of the world's engineers have truly transformed the way people live.

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Review

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About the Author

George Constable and Bob Somerville

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