



Parenting with Heart and Mind

When attorney Notoya Green '98 gave birth to triplets, she took a career turn.

By Karen McCally '02 (PhD)

IT'S OFTEN SAID THAT BEING A PARENT IS the hardest and most rewarding job there is. It's rarely said that the challenges of the job are intellectually hard or rewarding. Yet **Notoya Green '98** is one of a growing number of highly educated mothers who've found in one of the world's oldest jobs an occupational calling.

"I care very deeply about helping us all

learn more about parenting," says Green, who gave birth to triplets in 2010. Since then, she's taken her liberal arts and professional education—a degree in history from Rochester as well as a law degree from Fordham—her thoughtful bent, and her unusual circumstances as a mother of triplets, and carved out a role for herself speaking and writing about childrearing.

She writes a monthly column, "Down-town Mommy," for *Manhattan Family*, a

magazine launched in 2012 to meet a demand for parenting advice tailored to big city family life. She's a regular contributor to *Essence*, a general interest magazine targeted to African-American women. She makes frequent appearances on *NBC Connecticut* and other New York City television talk shows. And she maintains a blog, *Triples in Tribeca*.

A generation or two ago, articles about childrearing were most often to be found



amidst pieces on cooking and homemaking in magazines targeted to suburban married women. Today, articles on raising children get prime real estate in so-called “serious” media venues such as the *New York Times* and the *Wall Street Journal*, which interviewed Green in 2012 for an article about screening nannies.

“Years ago, I don’t know if people thought

▲ WORK & PLAY: “Years ago, I don’t think people thought about parenting as something to write about or talk about. It was something you just did,” says parenting columnist and blogger Green, pictured with her triplets, Eva, David, and Samuel.

Tips from Notoya Green

Five ways to get kids to help around the house:

1. Call them “helpers.” A University study recently published in conjunction with Stanford University showed that calling kids helpers motivates them more to help out with household chores and other tasks.
2. Avoid giving them chores as a form of punishment.
3. Assign chores that are age appropriate so that children feel they are accomplishing rather than struggling with a task.
4. Kids need consistency, so make the chores a routine.
5. Don’t forget to praise children for their help. Kids want and need positive reinforcement, just like adults.

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And of course those benefits:

- Helps language development. Following commands helps them follow directions in school and at home.
- Teaches responsibility. Having a sense of responsibility is important throughout life, and, researchers are now finding that character traits like conscientiousness are more predictive of success than IQ.
- Makes them better citizens. When kids help out at home they’re learning that they are a part of a community and that all people all have a duty to contribute to that community.
- Enhances self-esteem. Kids like having jobs and feeling needed.
- Teaches them about the world. Like adults, kids learn from doing and when they are more involved, they better understand how the world works.

about parenting as something to write about or talk about,” Green says. “There have been people like Dr. [Benjamin] Spock. But as more of us have become college educated, I think we’re thinking about child development very differently now than we did years ago.”

Even before the birth of her own children, Green had spent a great deal of time thinking about children and their development. An attorney, she specialized in family law, first in private practice, then for the New York City Administration for Children’s Services. Her legal experience is one factor that distinguishes her in the crowded field of self-styled parenting experts. For the *Wall Street Journal*, for example, she could offer parents advice on how to identify—or locate those who could identify—potential red flags while hiring child care help.

Her own children—David, Eva, and Samuel—were born just 26 weeks into her pregnancy. They spent their first months in a neonatal intensive care unit. For their first year, Green and her husband, Fred Mwanguhunga, devoted their attention to the most fundamental aspects of their children’s health. Were their organs developing properly? Would they have normal vision and hearing? It made Green protective.

“I thought of my kids as being very fragile,” she says. “I made the decision to be very present, to leave my career. I had a lot of help—at one time two full-time nannies—but I was always present because I was just

so concerned about the care they would receive from anyone.”

Because premature infants are at risk for developmental problems, Green had more incentive than most new parents to familiarize herself with research about such disorders as autism and attention deficit hyperactivity disorder, just to name a couple of the neurological problems premature babies are more likely than full-term babies to develop.

But with more knowledge about child development—physical, neurological, and psychological—come more questions. “I think it’s fair to say that raising children, on some level, is a bit more challenging now,” says Green, alluding to conditions such as autism and ADHD that were unnamed or unknown to most parents just a generation ago. “Many of us have questions.”

In September, David, Eva, and Samuel started preschool. They’ve thrived, and Green has now focused her attention on the ordinary dimensions of caring for young children. Toddler safety. Making friends at school. And simple joys, like watching Samuel form his first letters.

She’s also addressed challenges stay-at-home parents face in their own lives, such as re-entering the paid workforce.

“I always loved my job as a lawyer,” Green says. “But when I meet a similarly situated mother, we can talk forever. It’s something we can all relate to, because all of us have been children. And at some point, some of us become parents.” **®**

Set Your Ray Gun for ‘Zap’

Optics engineer Stephen Wilk '84 (MS) explains some of the science that lies behind the futuristic technologies of fictional worlds.

By Maya Dukmasova '12, '13 (T5)

ZAPPING RAY GUNS, POWERFUL TRACTOR beams, glowing gems—why do these 21st-century marvels exist only in fiction?

For **Stephen Wilk** '84 (MS), an editor and contributor at *Optics and Photonics News*, such questions are part of a lifelong fascination with the intertwining of science and imagination.

has frequently contributed historical fiction, sci-fi, and mystery stories to the e-zine *Teemings* under his “nom-de-Internet,” Cal Meacham.

“Whenever you’re writing something like science fiction, you want to have something very different from what people are used to,” says Wilk. The trick is to make up story elements that seem scientifically plausible yet beyond current

weaponry traces its roots to an 1809 novel by Washington Irving, says Wilk. The erstwhile creator of Ichabod Crane fantasized about invaders from the moon armed with concentrated sun beams. Later, the Martians in H. G. Wells’s 1898 *War of the Worlds* used invisible heat rays when conquering Earth.

“There’s no doubt in my mind that [the laser] became popular almost as

“I’ve been collecting weird bits of optics like this for a long time,” he says.

And for more than a decade he has used the magazine’s “Light Touch” column to focus on how optical science is portrayed in the spaceships and galaxies of popular culture, distilling science from science fiction and turning optical oddities into teaching tools.

He’s included some of his favorites in his latest book, *How the Ray Gun Got Its Zap: Odd Excursions into Optics* (Oxford University Press, 2013).

Wilk’s first book, *Medusa: Solving the Mystery of the Gorgon*, was published in 2000. He also pursues creative writing, and

abilities—solid electricity or noisy light, for example.

Wilk has also found that some of the most captivating inventions are ones that are bolstered by the arrival of real-life science that seems to make them possible.

Here’s a brief guide to some of those seemingly possible inventions:

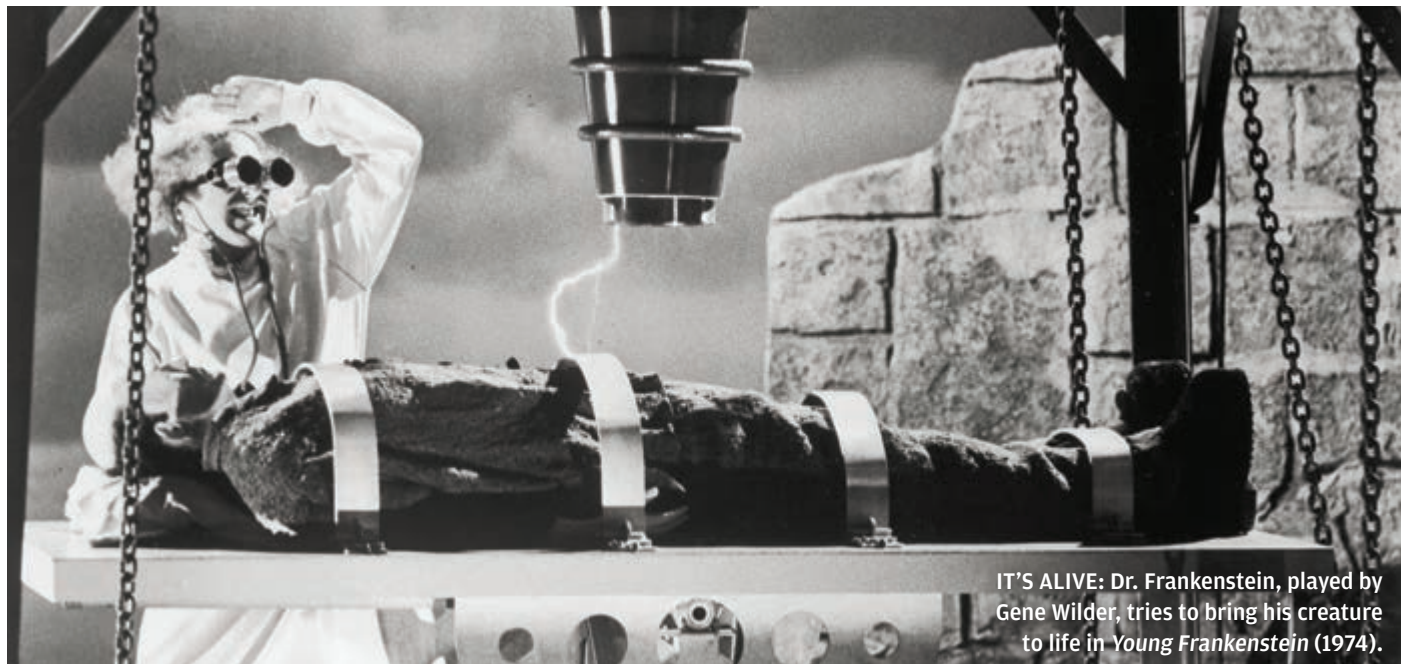
The Ray Gun

WHILE THE PROPERTIES OF LASER LIGHT have influenced many scientific fields over the past half-century, the laser owes its mass appeal to science fiction that preceded the first demonstration of lasers.

The notion of using beams of light as

soon as they built the first one because it seemed to be the scientific realization of this ray gun that people had been talking about for such a long time,” says Wilk.

Early sci-fi light weapons were usually silent (the way that real lasers are). The ray gun got its characteristic “zap” in 1928, courtesy of P. F. Nowlan’s story “Armageddon 2419 A.D.” As radio came along, and with it the need to indicate a weapon’s use and power with sound, the notion of zapping light was further reinforced. Film continued the tradition. “People dramatically would like to have a sound when you do something, especially if it involves great



IT'S ALIVE: Dr. Frankenstein, played by Gene Wilder, tries to bring his creature to life in *Young Frankenstein* (1974).

amounts of energy or has great physical impact,” says Wilk. The typical ribbed shape of ray guns is “exactly like the shape of an electrical insulator. It’s carrying that metaphor of the electrical breakdown, that ‘zap’ is the sound you hear from Tesla coils or Jacob’s ladders or other showy electrical devices.”

It’s Alive!

WHAT TO MAKE OF THE ICONIC MAD SCIENTIST who brings a creature to life with electricity, à la Frankenstein? As convincing



as Mel Brooks’s *Young Frankenstein* was at depicting the genesis of a monster through electricity, Wilk says there’s no basis for the idea in Mary Shelley’s 1818 novel. “She carefully restrains from actually saying how it was done. When [Dr. Frankenstein is pressed] by the captain of the polar ship about how he achieved this creation of life, he refuses to do so because he doesn’t want anybody to fall into the same sort of trap.”

But in the preface to his wife’s book, Percy Bysshe Shelley refers to the use of electricity to animate dead flesh. At the time, the experiments of 18th-century Italian scientist Luigi Galvani were well-known. Galvani discovered that when he applied electric current to the legs of dead frogs, the muscles would begin to twitch. That eventually gave rise to wide experimentation with electrical (re)animation in Europe. Some scientists even tried it with human bodies.

The Eye of the Beholder

IN THE 19TH-CENTURY THERE WAS A POPULAR belief that an image of a killer was imprinted onto a murder victim’s eyes.

And so, in the 1870s, German scientist Wilhelm Friedrich Kühne put popular culture to the test and claimed to discover “optography.” He carefully prepared the eyes of albino rabbits by first keeping them in the dark and then exposing them to a bright, barred window. Swift execution, extraction of the eyes, and



you’re near-sighted. Don’t bother trying to start a fire with your spectacles, despite what you remember from *Lord of the Flies*. The scene when the boys start a fire using Piggy’s glasses is woefully misleading.

Lenses that correct for myopia are negative, and therefore couldn’t concentrate light to start a fire the way a magnifying glass would. “I wear such glasses myself and it amazes me when I have the sun behind me. I can see the limits of the light that has passed through the lenses, and it’s larger. So obviously it wouldn’t focus the light down,” says Wilk.

separation of the retina followed. Kühne “developed” the retina in alum solution and, behold, the “biological photograph” showed a clear image of the bars.

“He basically overexposed the rabbit’s eyes and then slaughtered it immediately, and then immediately did the development work,” says Wilk. “The idea that you would come back much, much later and see the last thing somebody looked at is really untenable. But for a long time people believed that, and Jules Verne actually used that as a story point in one of his novels.”

Piggy’s Glasses

SUPPOSE YOU FIND YOURSELF STRANDED IN the wilderness. As luck would have it,

Luckily there’s a solution: travel with farsighted friends who wear positive corrective glasses, or fill the concave lens of your glasses with clear water to create a positive effect.

FINALLY, IF YOU FEEL COMPELLED TO GO OUT on an optical excursion of your own, Wilk encourages brushing up on your science knowledge and reading very carefully.

“Often any unlikely things or ‘leaps of faith’ are buried inside a lot of scientifically plausible and accurate writing. You have to keep up with your science and technology news.” **R**

Maya Dukmasova '12, '13 (T5) is a freelance writer based in Chicago.



Musical Missionary

Violinist Solomia Soroka '03E (DMA) aims to share “the beauty of Ukrainian music and the beauty of the revolution.”

By Karen McCally '02 (PhD)

FOR MONTHS AFTER THE OUTBREAK OF ANTI-government protests in the Ukrainian capital of Kiev last November, violinist **Solomia Soroka** '03E (DMA) could do little but follow the news. Her cousins and friends from her childhood in the western Ukrainian city of Lviv were standing in Kiev's Maiden Nezalezhnosti, or Independence Square,

protesting against the president, whom they believed had just moved the country a big step toward Russian domination.

“I felt inadequate. I felt guilty,” says Soroka, who lives in Ann Arbor, Mich., and is a professor of music at Goshen College in northern Indiana. “I knew all these people were standing there and dying there, and I couldn't do anything. I knew my grandparents did similar things.”

Soroka's grandparents, who resisted the Soviet Union as it tried to annex Ukraine in 1944, spent years in Soviet prison camps. Her grandfather died in one, in Siberia.

Her father, the well-known Ukrainian artist Bohdan Soroka, was part of a progressive art and literary movement in the 1960s. He would get summoned for interrogations. “My mother was sometimes afraid that he would never return,” she says.



And when she was a girl growing up in Lviv, Soroka recalls a day when Soviet KGB agents arrived at her family's home and prevented her from leaving for her violin lesson until they inspected the inside of her violin.

"They were looking for anti-Soviet propaganda," she says. "They knew we didn't have any. We never had any. It was just to make people afraid, to let you know that you were being watched."

▲ **MAGICAL MUSIC:** "Magical" was how one musician described Soroka's performance of Ukrainian music in Goshen, Ind. The concert brought awareness of events in Ukraine and support for the injured.

"I'm an American citizen now. I like very much living in the United States, and for me, just connecting with other Americans, Americans who have no connection to Ukraine, was just so gratifying."

Following the outbreak of violence, Soroka's first instinct was to help raise money to support injured Ukrainians. But she quickly realized that her talents as a musician gave her a special means to attract public attention to Ukraine. It was, after all, a project that she and her American husband, pianist Arthur Greene, have been undertaking for several years.

Among the eight CDs Soroka has recorded, four are on the Toccata Classics label. The label was founded in London in 2005 by music journalist Martin Anderson to record and promote, in one critic's words, "forgotten music by great composers [and] great music by forgotten composers."

In 2012, Soroka and Greene recorded music for violin and piano by Myroslav Skoryk, the most famous living Ukrainian composer who, like Soroka, was born in Lviv, but who grew up in Siberia, where his family, like Soroka's grandfather, had been exiled by the Soviets.

This year, Soroka and Greene recorded a CD of music by 19th-century Ukrainian composer Mykola Lysenko. Lysenko was also an ethnomusicologist, and his goal was to create music that was authentically Ukrainian, rather than mimic other European composers. In Soroka's view, Lysenko is among the most important classical composers of the 19th century, but never recorded in the West, due to Russian, and later, Soviet, domination of Ukraine's cultural resources.

Soroka and Greene were recording Lysenko's music in February, right as the worst violence up until that time was taking place. "I thought it would be so great if along with somehow helping, I could also introduce Ukrainian music to American people," she says.

Soroka and Greene created an all-Ukrainian program and performed for audiences in Goshen, Ann Arbor, Detroit, and Toronto last spring before heading to Ukraine for the summer.

"It was really a magical evening," says Beverly Lapp, chair of Goshen College's

music department, about the performance at the college in March. Although Goshen, a town of only about 30,000 people, boasts a community of several hundred Ukrainians, the concert drew a cross section of the town, according to Lapp.

"It was a packed house. Solomia spoke so beautifully about the composers," Lapp says. "The music featured arrangements of folk songs that are so lyrical, romantic, and expressive, but also allow plenty of virtuosity."

Audience members would be right to have high expectations. Soroka is a world-class violinist who thrived in Ukraine's ultra-competitive classical music scene. She made her solo debut at the age of 10 with the Lviv Philharmonic; earned a graduate degree at Kiev Conservatory before enrolling at the Eastman School to earn a second degree, studying with Charles Castleman; and has won top prizes in prestigious international violin competitions in the former Soviet Union.

Arthur Greene is also distinguished, having racked up multiple international prizes in piano performance.

As emails poured in in the days and weeks that followed the performances, Soroka felt that what was most important was the interest in Ukraine that she'd provoked, and the connection she made. "I'm an American citizen now," she says. "I like very much living in the United States, and for me, just connecting with other Americans, Americans who have no connection to Ukraine, was just so gratifying."

Soroka sees connections in the beauty of the music and the beauty, as she sees it, of Ukrainians' quest to maintain self-determination.

"It's tragic, it's horrible what's going on. But it's also so romantic and so beautiful, because Ukraine is a very multinational country. There are Jews, Armenians, Georgians, Russians, Ukrainians. And suddenly all of them came to stand there for the better life that in the United States we take for granted." 📍



SPACE PORTRAIT: As a member of the crew of *Skylab 3*, Gibson (below) took one of the final spacewalks from the orbiting craft (above).

Four Decades Ago, Ed Gibson '59 Set a Skylab Record

It's been 40 years since the third and final mission to *Skylab*, the nation's first space station. Aboard *Skylab 3* was NASA scientist-astronaut **Ed Gibson '59**, who—along with fellow crew members Jerry Carr and Bill Pogue—set a then world record of 84 days in space. It remained a record in the United States for 21 years, until Norman Thagard spent 115 days on the Russian space station *Mir*.

“Although it might not appear so, based on its metal internal surfaces, *Skylab* was a comfortable home for sure. I would've

been content to live there for many years, if I had friends and family along . . . and maybe a good pizza delivery,” Gibson wrote last year in an essay published in a *Skylab* special issue of the journal *Quest: The History of Spaceflight Quarterly*, marking the November 1973 launch. The mission ended in February 1974.

During 1,214 orbits of Earth, the men covered 34.5 million miles. They took four space walks on the mission; Gibson participated in three. *Skylab*, which was launched in 1973, remained in orbit until 1979. Gibson left NASA in 1981.





COMMENCEMENT MOMENT: President Joel Seligman (left to right), Ed Hajim '58, chairman of the Board of Trustees, and honorary degree recipients Chris Matthews and Barry Meyer '64 welcomed the graduating class at the start of the procession.

Commencement Honorees 2014

The University recognized alumni, faculty, and special guests at this spring's commencement ceremonies. Recognized for their teaching, scholarship, achievements, and service were:

Arts, Sciences & Engineering

G. GRAYDON CURTIS '58 AND JANE W. CURTIS AWARD FOR NONTENURED FACULTY TEACHING EXCELLENCE

Elizabeth Colantoni

Assistant professor of religion and classics

Vasilii Petrenko

Assistant professor of earth and environmental sciences

HONORARY DOCTOR OF LAWS

Barry Meyer '64

Former chairman, Warner Bros. Entertainment

HONORARY DOCTOR OF LETTERS

Chris Matthews

MSNBC political analyst and author

Doctoral Ceremony

WILLIAM H. RIKER UNIVERSITY AWARD FOR EXCELLENCE IN GRADUATE TEACHING

Eric Phizicky

Professor of biochemistry and biophysics

LIFETIME ACHIEVEMENT IN GRADUATE EDUCATION

Douglas Turner

Professor of chemistry

ROCHESTER DISTINGUISHED SCHOLAR MEDAL

Yuh-geng Tsay '77 (PhD)

Founder, Diagnostic Reagents

Eastman School

EDWARD PECK CURTIS AWARD FOR EXCELLENCE IN UNDERGRADUATE TEACHING

William Marvin '02E (PhD)

Associate professor of music theory

School of Nursing

CHARLES FORCE HUTCHISON AND MARJORIE SMITH HUTCHISON MEDAL

Harriet Kitzman '61W (MS), '84N (PhD)

Professor of nursing and pediatrics and senior associate dean for research

Simon Business School

CHARLES FORCE HUTCHISON AND MARJORIE SMITH HUTCHISON MEDAL

Robert Rich '69S (MBA)

Chairman, Rich Products Corp.



Eric Phizicky



William Marvin '02E (PhD)



Elizabeth Colantoni



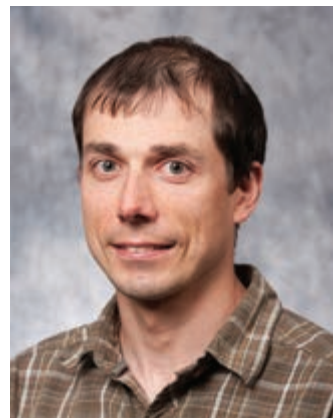
Barry Meyer '64



Douglas Turner



Harriet Kitzman '61W (MS), '84N (PhD)



Vasilii Petrenko



Chris Matthews



Yuh-geng Tsay '77 (PhD)



Robert Rich '69S (MBA)