In the fall of 1911, a small, heart-wrenching novel set in New York City found its way into American bookstores. Titled *The Nine-Tenths*, it depicted a movement—like the Occupy Movement which began in the same part of Manhattan precisely one hundred years later—that worked on behalf of the roughly 90 percent of Americans who were being left behind by an increasingly wealthy but deeply stratified society. Loosely based on “the uprising of the 30,000,” a militant strike by mostly immigrant, female garment workers, it recognized not only inequality of income, but unmet needs of a less material nature.

That same December, the novel’s author, James Oppenheim, followed it with a much-praised poem, “Bread and Roses,” the slogan drawn from a 1910 speech by suffragist Helen Todd, which later became a popular labor anthem. In the poem, the marching textile workers of *The Nine-Tenths* are singing in the sunlight of a beautiful day: “Small art and love and beauty their drudging spirits knew,/Yes, it is bread we fight for, but we fight for roses too! Hearts starve as well as bodies;/Give us bread, but gives us roses!” wrote Oppenheim.

If we think of bread as representing the more material side of life and roses the less material, it’s possible to look at American history as one of repeating cycles of bread and roses, eras when money and economic values—wealth, growth, and competition—were dominant, and others more focused on beauty, art, nature and cooperation, seeking balance after periods of excess.

The full cycles last about half a century. The “roses” periods, twenty years long or a bit more, can be found roughly at the beginning and middle of both the nineteenth and twentieth centuries, while the eras of “bread” usually last slightly longer. In this essay, I want to explore one of the eras of roses, a remarkable flourishing following the quarter-century of greed, imperial expansion, and great new industrial fortunes that Mark Twain dubbed “the Gilded Age.” Often called the Progressive Era, the period was one when Americans began making peace with nature and each other.

**AMERICA THE BEAUTIFUL**

The Gilded Age was fiercely materialistic. Yet in its alien soil, roses began appearing once again, like grasses through cracks in the sidewalk, challenging wasteful excess in the name of balanced progress. As early as 1877, Interior Secretary Carl Schurz pushed for preserves to protect America’s threatened forests from the ax. On May Day, 1886, half a million workers marched in American cities for a reduction in working hours to eight per day. They considered time as important as money.

The year 1892 saw the founding of the Sierra Club by John Muir and a group of San Francisco friends. The Club sought to encourage Americans to “explore, enjoy and protect” wild places. Muir maintained that “everybody needs beauty as well as bread.” The need for beauty, he argued, may atrophy from too much time spent among ugliness, but it does not die. He marveled that San Francisco’s street urchins, living in squalor, mobbed him for flowers on his return from hikes on Mt.
Tamalpais or the Berkeley hills. “As soon as they caught sight of my wild bouquet, they quit their pitiful attempts at amusement in the miserable dirty streets and ran after me begging a flower. ‘Please Mister, give me a flower, Mister,’ in a humble, begging tone as if expecting to be refused. And when I stopped and distributed the treasures... the dirty faces fairly glowed with enthusiasm while they gazed at them and fondled them reverently as if looking into the faces of angels from heaven.”

If we think of bread as representing the more material side of life and roses the less material, it’s possible to look at American history as one of repeating cycles of bread and roses.

That same year Cosmopolitan serialized a novel containing a withering attack on the Gilded Age. Set in a fashionable Eastern resort for the well-to-do, William Dean Howells’ A Traveler from Altruria is the story of a visitor from a distant island where the greed and materialism of 1890s America had been replaced by a happier society based on altruism. In Altruria, a Christian socialist utopia, the sharing of work has led to a three-hour work day. Free time has allowed fine craftsmanship, and durable, artful products have replaced industrial standardization and shoddy mass-produced goods. Class differences have been erased, leading to more graceful human relations.

In late July of 1893, a college professor from Boston found herself atop 14,110-foot Pikes Peak in Colorado. As she surveyed the “purple mountains’ majesty” to the west and the endless “fruited plains” thousands of feet below to the east, a poem emerged from the mind of Katharine Lee Bates. A “Christian Socialist,” like Howells, Bates was awed by the diverse beauty of America, but disappointed that our cities, institutions, and treatment of each other failed to match the lovely landscape surrounding us. She was troubled by the legacy of slavery and the genocide of Native Americans.

She sent the first draft of her poem, “America the Beautiful” (later set to music), to two friends with a letter expressing her wish to see America be good and just, rather than simply powerful—“Till souls wax fair as earth and air,” she wrote, suggesting that if America was rich materially but not in “brotherhood,” it would surely go the way of the British empire and others. Deeply conscious of the inequity of the so-called Gilded Age, she wrote, “America! America!/God shed his grace on thee/Till selfish gain no longer stain/The banner of the free.”

In the second draft of the poem, written in 1904, Bates made clear her understanding that the country she loved had not yet lived up to its ideals. Her words—” America! America! / God mend thine every flaw/Confirm thy soul in self-control... America, America, may God thy gold refine”—spoke to the need for balance and appreciation of the non-material sources of wealth. She asked Americans to view greatness differently and to imagine a country where justice, brotherhood, and mercy matched the glories of our mountains, fields, and oceans.
Bates did not see beauty everywhere. When she wrote the lines, “Oh, beautiful for patriot dream/That sees beyond the years/Thine alabaster cities gleam/Undimmed by human tears,” she imagined a future where all Americans lived in beautiful, though modest, surroundings. She had written a children’s book decrying the “wretched, troublous life” in America’s sweatshops with “reeking walls and poisonous stench.”

**THE CITY BEAUTIFUL**

Bates was not alone in wanting lovely cities and greater justice. The backlash against the lopsided development of the Gilded Age included calls for reform from all sectors of society, including immigrants, organized labor, intellectuals, religious leaders, political reformers, farmers, urban blacks, and women. Founded in 1899, the City Beautiful Movement challenged the haphazard, commercially-driven development of American cities in the name of a more elegant architecture, fine civic gathering places, and, especially, the introduction of nature—in the form of parks—back into the city.

City Beautiful was a middle-class effort to create more aesthetically pleasing cities and make citizens more engaged and community minded. Though it attended to the mundane—transport, sewage, trash collection—it found it not nearly practical enough. And City Beautiful was never able to go far enough to end much of the squalor in poor neighborhoods or to control unplanned sprawl.

But, argues University of North Texas historian William Wilson, the movement’s accomplishments were many—“emerald parks, sinuous parkways, graceful trees flanking parked boulevards, stately public buildings of surpassing workmanship and decoration, magnificent monuments and even a few civic centers.” Wilson writes that City Beautiful was an inspiring, optimistic movement, led by committed environmentalists. Frederick Law Olmsted’s earlier ideas—that parks enhanced land values, thus often paying for themselves, and allowed healthful recreation and restoration for weary workers—were widely accepted by City Beautiful advocates. Parks were also seen as “a magnet for all urbanites and a benign instrument of class reconciliation and democratization.”

Olmsted, who designed Central Park in 1857, and his City Beautiful followers, including his sons, preferred landscape architecture that preferred natural forms to rigid geometrical designs. They also advocated for the preservation of some completely wild lands whose character might be destroyed if subjected to utilitarian purposes.

While it was the middle class that demanded them, the parks and public places that City Beautiful championed were of at least as much benefit to the poor; as such, they were symbols of democracy. Olmsted had in fact declared that the greatest benefit of his parks would be to the lower classes, since they were otherwise most excluded from beauty and healthy environments.

For the foreign-born textile workers in New York’s teeming tenements, the park offered brief respite before and after work. In her 1918 autobiography, *One of Them*, Russian immigrant and needle-worker Elizabeth Hasanovitz writes fondly of how the park saved her spirit, and that of her friend Fannie, in the bleakest times.

“How wonderful, how glorious nature is!” Fannie murmured wistfully. I looked down to the reservoir. Its greenish water gleamed out from the trees. “Let’s go to the park,” I suggested. “Yes, let’s go down there,” she said approvingly. Quietly we walked down from the roof and off to the park... The leaves and grass were moistened with the morning dew; the fragrance all around was deliciously sweet. The birds singing and twittering their morning songs greeted us merrily.

The new desire for more parks and more nature in the city led to the formation of the American Park and Outdoor Art Association in 1897, two years before the first official gathering of City Beautiful. One of its early struggles was against the proliferation of billboards. Individual cities followed suit—Minneapolis aimed to create “one of the most healthful and beautiful cities in the world.” Boston, Chicago, and some other cities sought to go beyond urban parks to save large areas of open space in their natural state. Chicago still boasts seventy thousand acres of forest preserve, protected in 1914: “for the purpose of protecting and preserving the flora, fauna and scenic beauties within such district, and to restore, restock, protect, and preserve the natural forests and such lands together with their flora and fauna, as nearly as may be, in their natural state and condition, for the purpose of the education, pleasure, and recreation of the public.”

*CITY BEAUTIFUL was a middle-class effort to create more aesthetically pleasing cities and make citizens more engaged and community minded.*
Then as today, as William Wilson writes, “the struggles were between people who desired a rich, full life for the residents of a beautiful city and those who saw the city in strictly utilitarian terms.” And behind that struggle lies another important question: Is beauty a valid public, or strictly a private, concern?

AN ERA OF FERMENT

The pre–World War I Progressive Era, of which City Beautiful and its sisters were a part, was a time of ground-breaking political reform and immense intellectual ferment—a bit more than two decades of transformation unmatched in American history, either before or after. The ferment of the Progressive Era came to some degree from all classes—as early as the late 1890s, a new focus on “simplicity,” instead of conspicuous consumption, much like that espoused by Thoreau half a century earlier and by the “voluntary simplicity” movement a century later, won converts among the middle class and even some rich Americans. Its chief proponent was Edward Bok’s Ladies’ Home Journal, the best-selling magazine of its day and the first in the world to have a million subscribers.

As a boy in the Netherlands, Bok wrote in his memoir, The Americanization of Edward Bok, he was taught thrift; in America he learned to waste things, perhaps a precursor to the “use it once and throw it away” ethic that dominated the post–World War II era. “As I grew into young manhood and went into business,” Bok wrote, “I found on every hand that quantity counted for more than quality... the cry was always for quantity, quantity!”

Much of the activity of the new era aimed at narrowing the economic chasm that widened during the Gilded Age, with its mass factory system and great fortunes won in steel, oil, railroads, and banking. Formed in 1905, the Industrial Workers of the World challenged both “wage slavery” and the “aristocracy of labor,” represented by the established guilds and craft unions. Representing miners, timber workers, and industrial laborers, the “Wobblies” as they were often called, brought humor and music, as well as fight, into the labor movement. Their singers and songwriters, including Ralph Chaplin, turned popular songs into labor ditties, changing the words, while Chaplin’s anthems, such as “The Commonwealth of Toil,” envisioned a new world, free of inequality and infused with brotherly love.

When our cause is all triumphant
And we claim our Mother Earth,
And the nightmare of the present fades away,
We shall live with love and laughter,
We who now are little worth,

And we’ll not regret the price we have to pay...
For we have a glowing dream
Of how fair the world will seem
When each man can live his life secure and free;
When the earth is owned by labor
And there’s joy and peace for all
In the Commonwealth of Toil that is to be.

Labor generally championed an eight-hour workday and public holidays, successfully in some industries, particularly the new automobile factories, where, in 1914, Henry Ford granted shorter work-time and higher wages to sell the cars he manufactured. Meanwhile, even more surprisingly, the July 31, 1910, edition of the New York Times reported that William Howard Taft was a big advocate of time off. “How long should a man’s vacation be?” the headline read. “President Taft says three months.” Months, not weeks! But the captains of industry were not fond of the idea and Taft quickly dropped it.

Muckrakers like Ida Tarbell and Upton Sinclair revealed monopoly power’s abuses and the horrible conditions connected with meat production and other foodstuffs, leading to health protections and trust busting, including the Pure Food and Drug Act of 1906 and the Sherman Anti-Trust Act of 1911. Moreover, the era saw women gain the vote, first in western states as early as 1907, and then, in 1920, nationally. Even religion reflected the reform-minded quality of the era, with Protestant ministers preaching a liberal theology and a “social gospel” that addressed the inequities of the era.

COUNTRY LIFE AND THE GOSPEL OF BEAUTY

Where City Beautiful hoped to make the teeming new urban centers healthier and more livable for the masses that were crowding into them, the Country Life Movement wanted to prevent the exodus from the countryside and small towns in the first place by revitalizing them economically and culturally. Its chief proponent was a biologist and horticulturist, Liberty Hyde Bailey, a dean of agriculture at Cornell and one of the shining lights behind the land grant college extension program, whose goal was making agriculture more productive and financially sustainable.

For all their grime and crowding, the recently-electrified cities had exerted a pull on the youth of the countryside. But Bailey and his colleagues believed the future of the world depended on a plentiful yet durable food supply, and the cities could not provide that. “The country life movement,” Bailey wrote, “is the working out of the desire to make rural civilization as effective and satisfying as other civilization... A good agriculture is one
that is self-sustaining and self-perpetuating, not only increasing its yields year after year from the same land but leaving the land better and richer at each generation.”

“The final object in life is not to make money,” Bailey charged, “but to use money in developing a higher type of endeavor and a better neighborhood... Standards of service must take the place of standards of property... We have been living in a get-rich-quick age... Our business enterprises are organized with that end in view. Persons are now asking how they may live a satisfactory life, rather than placing the whole emphasis on the financial turnover of a business. There is greater need of more good farmers than of more millionaires.”

**The Country Life Movement wanted to prevent the exodus from the countryside and small towns...by revitalizing them economically and culturally.**

Balance indeed was Bailey’s goal—not to dismiss material progress or return to the cave and the loin cloth, but to correct a society whose values had grown deeply lopsided in the Gilded Age. Bailey was quick to denounce inequality in the cities, fearing its spread to more egalitarian rural areas.

The great centers invite combinations, and, because society has not kept pace with guiding and correcting measures, immense abuses have arisen and the few have tended to fatten on the many... It seems to me that what is really needed is a back-to-the-village movement... We have overbuilt our cities at the expense of the hamlets and the towns. I look for a great development of the village and small community in the next generation.

Among the most eloquent advocates of a back-to-the-village movement, progressive populist poet Vachel Lindsay proclaimed a “New Localism,” in which rural life might be enhanced by an infusion of arts, music, and craftsmanship. He warned that the Amazon of its day, the Montgomery Ward Company, was filling all the homes of rural America with identical factory-produced goods from its mail order catalog. Lindsay walked from town to American town preaching the merits of his new localism, in oratory, prose, and verse. In the summer of 1912, he set out on foot from his home in Springfield, Illinois, to Santa Fe, New Mexico, depending on the generosity of rural and small-town Americans for his lodging and sustenance while contributing chores and poems in return. He took only his clothes and a small pack filled with a little pamphlet, *The Gospel of Beauty*, to give away as he preached it dramatically in town after town.

I come to you penniless and afoot, to bring a message... a new religious idea... the church of beauty... Our religious life will no longer trouble itself with the squabbles of orthodoxy.

We should make our own home and neighborhood the most democratic, the most beautiful and the holiest in the world. The children now growing up should become devout gardeners or architects or teachers of dancing in the Greek spirit or musicians or novelists or poets or story-writers or craftsmen or wood-carvers or dramatists or actors or singers. They should find their talent and nurse it industriously.

Then they should come back to their own hearth and neighborhood and gather a little circle of their own sort of workers about them and strive to make the neighborhood and home more beautiful and democratic and holy with their special art... Their reason for living should be that joy in beauty which no wounds can take away... They will make our land lovely.

In 1908, President Theodore Roosevelt established the Commission on Country Life, appointing Liberty Hyde Bailey to lead it. Among the findings of its report was a recognition that a revitalized rural America depended on preserving and enhancing “the value of scenery. This is a distinct asset, and it will be more recognized as time goes on. It will be impossible to develop a satisfactory country life without conserving all the beauty of landscape and developing the people to the point of appreciating it.” These were undoubtedly Bailey’s words, and he would expand on these ideas in his seminal work, *The Holy Earth*, published in 1915.

The proper care-taking of the earth lies not alone in maintaining its fertility or in safeguarding its products. The lines of beauty that appeal to the eye and the charm that satisfies the five senses are in our keeping... No one has a moral right to contribute unsightly factory premises or a forbidding commercial establishment to any community.

It was an era in which men and women spoke freely and emotionally about the need for beauty. But the Country Life Movement was about more than aesthetics. Again, Bailey expressed this eloquently:

One of the greatest sins of society is the wholesale befoulment of streams, lakes, and water-courses. I do not
see how we can expect to be called a civilized people until we have taken care of our refuse without using it to fill up ponds and lakes, and to corrupt the free water supplies of the earth... The greatest of all resources that man can make or mar is the soil... The man who plunders the soil is in very truth a robber, for he takes that which is not his own, and he withholds bread from the mouths of generations yet to be born.

Business interests would oppose government environmental controls in the name of private property rights, Bailey observed, but rules were necessary to protect the livelihood of future generations. The Country Life Commission and the system of land grant college extension programs it helped foster encouraged farmers to work more closely with nature’s own laws and to protect soil by diversified planting and other methods of land stewardship. It was certainly only partly successful—in the next two decades a focus on expanded production rather than conservation would lead to the Dust Bowl of the 1930s.

THE CONSERVATION MOVEMENT

Meanwhile, Theodore Roosevelt and others took notice of the rampant waste of American resources that Edward Bok noticed when he arrived in this country. The forests of the East were primarily gone, those of the Great Lakes had fallen rapidly to the saw and ax, and even in the far west, the greatest forests of all were under attack.

Yale forester Gifford Pinchot had seen enough. He convinced Roosevelt to apply conservation management techniques pioneered in Germany to America’s forests, becoming the first Chief of the newly established U.S. Forest Service in 1905. The goal was “multiple use”—forests were to serve both lumber and recreational needs but be managed sustainably. Places of unique and widely recognized beauty received more protection as national parks and monuments, where cutting, mining, and other extraction of natural resources was prohibited. In this same era of roses, the National Park Service was established in 1916. A model for many other nations, it would later be called “America’s best idea.”

The conservation movement was not of one mind. John Muir, the preservationist, and Pinchot fought bitterly over the plan to dam a portion of Yosemite National Park, a spectacular valley called Hetch Hetchy, to provide water for San Francisco. “Dam Hetch Hetchy! As well dam for water-tanks the people’s cathedrals and churches, for no holier temple has ever been consecrated by the heart of man,” Muir railed. “These temple destroyers, devotees of ravaging commercialism, seem to have a perfect contempt for Nature, and, instead of lifting their eyes to the God of the mountains, lift them to the Almighty Dollar.”

MUIR AND ROOSEVELT

Muir was perhaps the most eloquent and vociferous advocate of new values for America. According to historian Donald Worster, Muir saw conservation as “a movement to set limits on growth and the pursuit of wealth... Saving the American soul from a total surrender to materialism was the cause for which he fought... he tried to lead his fellow citizens toward new ideas and values in their personal lives that could contain that materialistic virus... He taught them to cultivate leisure instead of endless work.”

In the final reckoning, writes Worster, the values Muir professed were “not strong or widespread enough to contest the power of the growth ideology in America. Even the self-styled Progressives, eager to put the economy under government oversight, when put to the test, insisted on economic growth, national expansion and material values above everything else.”

Yet Muir did have a profound influence on Teddy Roosevelt, who, when he came to power in 1901 following the assassination of President McKinley, was a walking internal War of the Roses—and Bread. He was immensely proud of his manly vigor (overcoming a sickly childhood), loved to hunt big game, and, during the Spanish-American War, dreamed imperial dreams of empire and conquest. While enjoying aspects of the simple life—and promoting it for all Americans—he was quick to luxury as well.

His inclination toward the roses came from a fondness for animals. His White House (he renamed it that) was a raucous menagerie of pets. And while he loved to hunt, he was a fierce advocate of protecting wildlife and their habitats. From the opposite coast, TR devoured all of Muir’s writings and wanted to meet the great naturalist. He got his opportunity when the two men visited Yosemite together in May of 1903. Though hotel stays were planned for them, the sixty-five-year-old Muir suggested they camp out and Roosevelt agreed heartily. They regaled each other with stories until late into the night and Muir urged Roosevelt to protect more parkland, including adding Yosemite Valley and the Mariposa Grove, then still under the control of the state of California, to the bigger Yosemite National Park, which, in 1890, had been established around them.

TR returned to Washington with a new commitment to saving wild and beautiful places and a fierce antagonism toward timber
and mining interests that were desecrating many parts of the landscape. He fought for the Antiquities Act of 1906, which gave him the power to protect certain places by presidential fiat, as national monuments. He derided commercialism in and near the parks. “Leave as it is,” he said of the Grand Canyon. “You cannot improve on it. The ages have been at work on it and man can only mar it.”

Roosevelt felt the same way about many other places, and during his presidency established dozens of parks, monuments, and wildlife refuges. He was clear that the parks should be democratic, open to all regardless of race or class. Holding those views, he lost every southern state in his re-election campaign. Already predisposed toward wildlife and wild places, he came away from his sojourn with Muir a man possessed to save all he could. If only every president could go camping with Muir!

**NATURE STUDY**

The Country Life and Conservation movements found support in another effort that fully emerged in the 1890s and early in the twentieth century. “Nature study” was an educational method that sought to teach science through direct experience with the natural world. With its slogan, “Study nature, not books!” it became an extremely popular part of the progressive education movement from the 1890s through the 1930s. Its champions hoped to teach scientific methods while at the same time increasing personal well-being. They believed that thorough exposure would lead to sympathy with nature, and “protect American democracy from the dulling effects of industrial life.”

“Beginning in the late nineteenth century,” historian Kevin Armitage writes, “thousands of Americans turned to an unexpected pastime that had been theirs to take up all along: the study of nature. Armed with cameras and collecting jars, everyday citizens wandered the country’s forests, prairies, and mountains to gain an appreciation of local flora and fauna and to escape the increasingly industrialized world as well.” Some carried backpacks to open spaces near their homes, while others sought more remote wilderness in groups as large as a hundred campers, their food and gear transported by mules. The writings of Muir especially found an eager audience.

In 1902, to introduce American children to nature and how to get along well in wild places, wildlife artist Ernest Thompson Seton, who fancied himself an expert in Native American lore, founded the Woodcraft Indians and later, in 1910, the American version of the Boy Scouts. Seton had learned the value of nature for children by taking juvenile delinquents on camping trips and noticing the positive change in their behavior. He believed that Native American culture was superior to that of industrial society and that nature study should include its lessons.

*It is almost impossible to study this period in our history without marveling at the diversity of, and experimentation with, new and progressive ideas. But then came the war.*

In the same year, 1908, that he was chosen by Teddy Roosevelt to chair the Country Life Commission, Liberty Hyde Bailey also organized the American Nature Study Society. In his position as dean of agriculture, he appointed Cornell’s first female professor, Anna Botsford Comstock, to lead a nature education program, training teachers in methods of nature study.

“Nature-study cultivates in the child a love of the beautiful; a perception and appreciation of color, form, and music,” Comstock wrote in 1911. Nature study “develops powers of observation... Observation should lead to logical thinking... Nature-study develops in the child a sensible altruism and humanness [and] gives the child a sense of companionship with life out-of-doors.”

Yet another response to industrialization was the Arts and Crafts Movement, which began in Victorian England with the ideas of John Ruskin and William Morris, but by the turn of the century had established roots in the United States. The movement fought back against both the drab uniformity of industrial America and the perceived over-embellishments of Victorian architecture.

**WAR KILLS THE ROSES**

The early twentieth century offered a bright bouquet of roses. In a few short years, the nation moved far toward quality of life, restoring balance after the excess of the Gilded Era. It is almost impossible to study this period in our history without marveling at the diversity of, and experimentation with, new and progressive ideas. But then came the war.

World War I began in Europe in August of 1914, but it was not until almost three years later that Americans joined in. When they did, the country mobilized quickly and the focus on domestic beautification and reform took a back seat to life
or death concerns. Kevin Armitage writes that “after the war, the propensity for organized, ameliorative reform yielded to the corporate values of mass consumption and commercialized leisure that became the popular ethos of the 1920s.” The desire for reform didn’t end with the war or even with the period of brutal repression of labor—exemplified by the notorious Palmer Raids—that followed victory. Women were finally granted the franchise in 1920, for example. But the most prolific era of roses in our history died at the height of its glory.

Photo credit: David de Graaf.

John de Graaf is a filmmaker, activist, public speaker and the co-author of Affluenza: the All-Consuming Epidemic, Take Back Your Time, and What’s the Economy for, Anyway? His latest campaign is And Beauty for All (www.andbeautyforall.org) and he is working actively on the Green New Deal and on a new film, Green New City, about Vallejo, California’s efforts to bring nature and beauty into a diverse city that recently fell on economic hard times. He serves on the board of Earth Island Institute and has taught at the Evergreen State College. He was named an Outstanding Alumnus of the University of Wisconsin—Superior last year and lives in Seattle. References for the passages quoted in this essay are available from the author on request. See www.johndegraaf.com