Anna Seeley

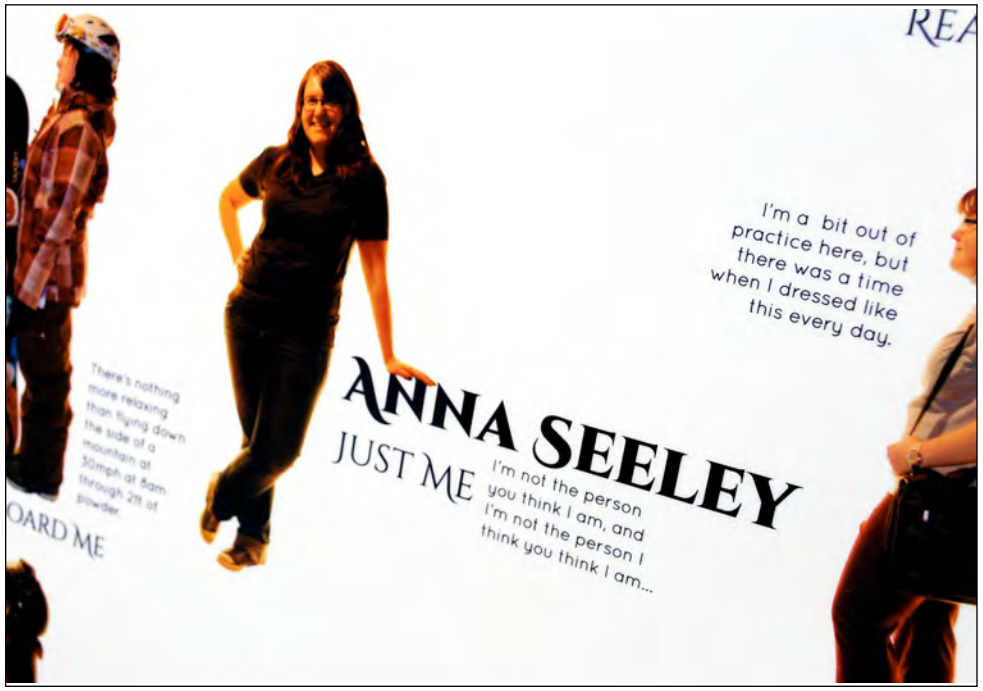
Portfolio

May 2014

Me Poster

Single Page Design

Synthesizing a large amount of data down to a single page layout. Research and mind-mapping were key to the creation of this project. Using InDesign and my own photography, I chose a simple 3x3 grid and catchy captions to describe the different parts of myself.



Primarily self-taught, I'm pretty handy with a crochet hook, knitting needles, and a sewing machine. If I see it on Pinterest, I'll give it a go.

CRAFTY ME

Backpack on and Lonely Planet in hand, I'm ready to travel to every corner of this Earth.

TRAVEL ME

It is a truth universally known that the roads go ever on and on...

READER ME

There's nothing more relaxing than flying down the side of a mountain at 30mph at 8am through 2ft of powder.

SNOWBOARD ME

ANNA SEELEY

JUST ME

I'm not the person you think I am, and I'm not the person I think you think I am...

I'm a bit out of practice here, but there was a time when I dressed like this every day.

PROFESSIONAL ME

Though I'm a fair-weather rider a layer of leather keeps the road-rash away. (I'm speaking from experience.)

MOTORCYCLE ME

From folk, to rock, to hip-hop, as long as it's got a funky beat and a killer hook, I've got portable sounds.

GUITAR ME

But one thing I do: Forgetting what is behind and straining toward what is ahead, I press on toward the goal to win the prize for which God has called me heavenward in Christ Jesus.

FUTURE ME

EMI Spring 2014 Newsletter

Publication Design

A quarterly 6 page publication showcasing current stories from the field and upcoming project trips. Designed in keeping with organization branding and style.

Gaoetelwe Gagoomang (GG)

is an engineer from Maun, Botswana who joined an EMI-USA project team to Zambia in 2013.

I have this vision and dream to serve the Lord as an engineer missionary in India and use my skills for the service of the Lord. Some weeks before finishing my degree in Soil and Water Conservation Engineering, I was on the web and came across EMI. I applied as a volunteer in an EMI project near me in Zambia. To be able to travel abroad I faced struggles with my passport and finances, but the Lord used my university lecturer to enable me to be part of the team.

Having this opportunity to serve as a volunteer with EMI on the Zambia project was a dream come true. I was amazed by the need for my skills of water engineering in the world and how much is needed to help people and bring them to Jesus Christ. I realized the importance of gaining experience and exposure to become a professional designer and serve the Lord with my skills. Because I believe God is calling me to India, I've applied for an internship with EMI at the India office.

GG and volunteer surveyor, Rudy Nunez, on site in Zambia.

Sujay discussing Master Planing with volunteer architect, Frank Gorman.

Sujay Thomas

is an architect from Bangalore, India who took an internship with EMI-South Asia in 2013.

My father suggested EMI (eMi² in particular) as an interesting place to intern as a Christian architecture student. After that, I heard about EMI at a UESI camp. The Union of Evangelical Students in India is a network of Christian students throughout colleges in India very similar to Intervarsity, Campus Crusade and IFES elsewhere. That camp was a time when I began to take serving God full time a lot more seriously. EMI sounded ideal because I could both practice architecture and serve God in my own country. A month after that an old Sunday school classmate told me about it again, so finally I Googled EMI and scrutinized the websites.

One year later I sat as an architectural intern in a Delhi basement surrounded by a lot of Americans... and God. I know He wants me to serve Him completely and EMI has a big role in that. I also know I have more to learn as an architect. God put the needs of my own people in my heart and I was moved with what I saw and felt in North India.

Pray

East Africa office

Celebrate with us as construction begins on the EMI-MAF joint office building in Kajansi, Uganda. Pray that God would provide the remaining funds to complete this project.

West Africa office

Please pray for our West Africa office team as they make a trip to connect with ministry partners and evaluate locations for this new EMI office. Pray for wisdom and the Lord's leading as they go.

America Latina office

EMI is currently recruiting and mobilizing a core team to re-launch an office in Latin America. Pray for the development of the team, the selection of the office location, and the resources to make this office a reality.

Global staff needs

Staff and Long-Term Volunteers are essential to the ministry of EMI. As we grow globally, we will continually need design professionals who will go and serve in our offices world-wide. Join with us in prayer for people who will go to serve the least reached of our world.

Go

Use your skills to serve

Join a project trip
Participate in an EMI event
Serve as an office staff member

Find out more about joining a project trip at *emiworld.org/projects.php*.

Bellevue University Logo Redesign

Redesign the University logo.

Bicicletta Blu

Maker of “Italian style” (Classic, upright, homemade, city, comfortable) bicycles.

Cuts the Mustard

Food truck offering a variety of American fair for foodies and people who just like food.

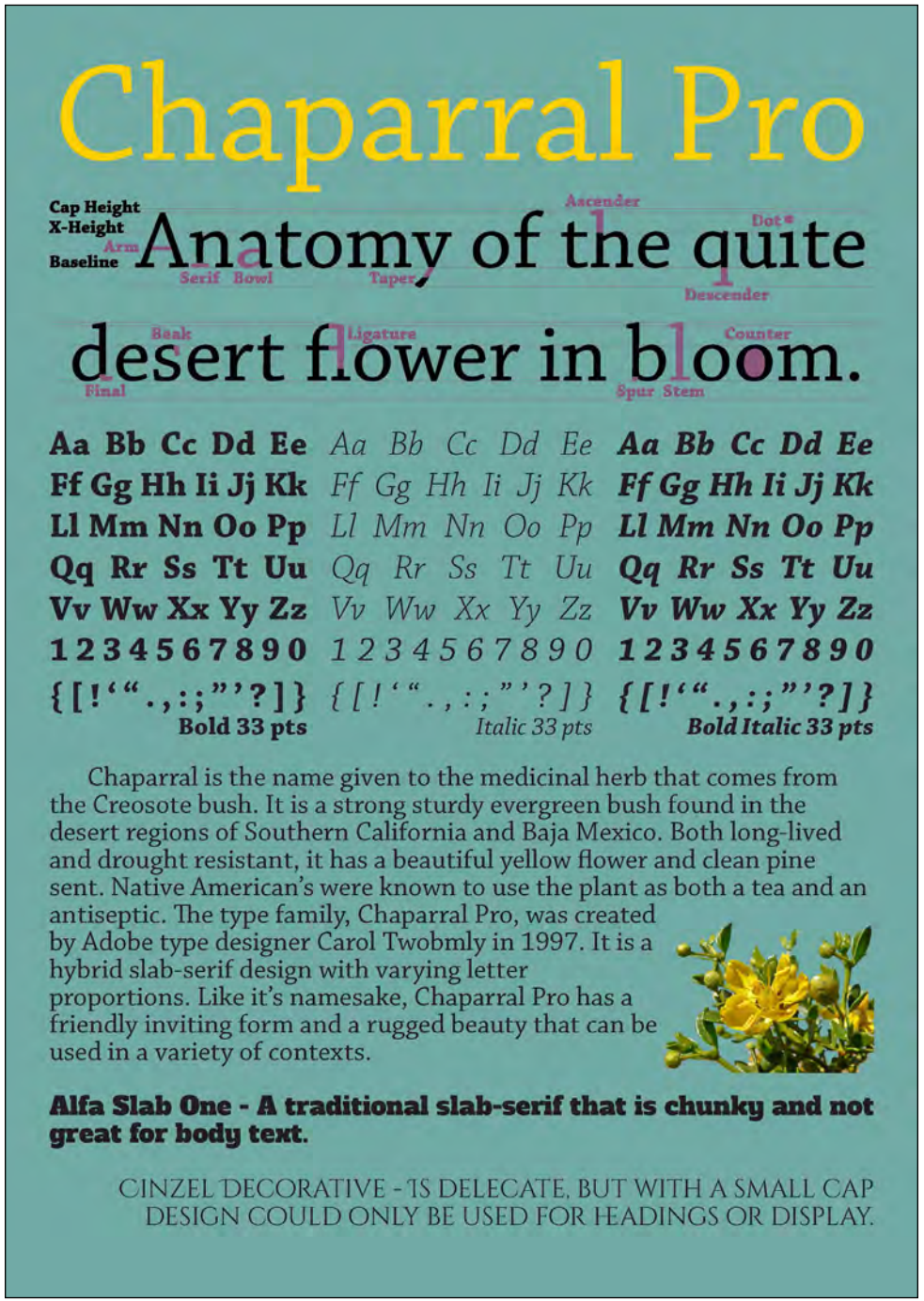
Urban Coffee + Office

Shared Work Space and Coffee Shop. Clients can rent space from hourly to monthly rates or just enjoy a good cup of joe.

Typography Poster

Print Design

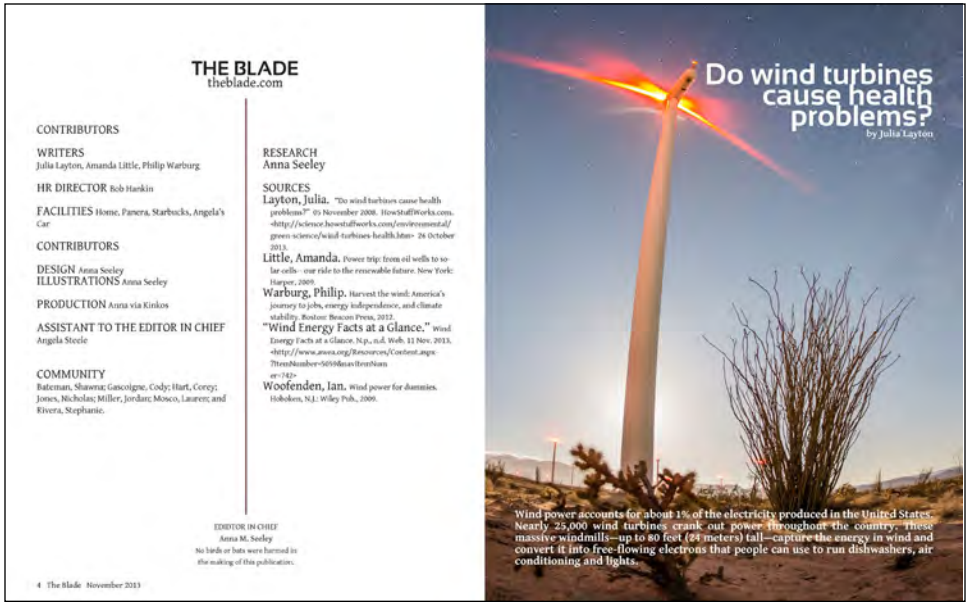
Pick a font and create a poster describing it's anatomy and history.



The Blade - Self Edited & Designed Magazine

Publication Design

Create a magazine from cover to cover on a topic of interest. Using only primary sources in research, magazine must have at least 4 articles. Final mock-up made.



THE BLADE
theblade.com

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EDITOR IN CHIEF
Anna M. Seeley
No birds or bats were harmed in the making of this publication.

4 The Blade November 2013

Do wind turbines cause health problems?
by Julia Layton

Wind power accounts for about 1% of the electricity produced in the United States. Nearly 25,000 wind turbines crank out power throughout the country. These massive windmills—up to 80 feet (24 meters) tall—capture the energy in wind and convert it into free-flowing electrons that people can use to run dishwashers, air conditioning and lights.

That 1% may not sound like much until you realize that wind power is just catching on in the United States. Huge new wind farms accounting for thousands more megawatts of capacity are in development as we speak, and estimates put 20% of the nation's electricity coming from wind power by 2030. The European Union hopes to reach that percentage even sooner—by 2020.

Until recently, there were three main issues regarding the possible downsides of wind power: bird and bat deaths, cost, and disrupting the appearance of natural landscapes. But a new objection to wind power has popped up in the past few years, resting on the research of a few scientists. The latest argument states that wind power endangers the health of people who live near windmills. Some people call this theory "wind-turbine syndrome." Although the extent of the phenomenon is unknown, there does seem to be something to it.

Those concerned about wind power syndrome are interested in finding out if and how wind power could be making people sick. Is everyone living near windmills facing health problems? Let's take a look at the possible health risks associated with wind farms and find out whether we should be worried about the steady increase in wind-generated power throughout the world.

Infrasound and The Body

The rapidly spinning blades of huge wind turbines have an effect on their surroundings, and it goes beyond aesthetics. The blade tips of a wind turbine can spin at speeds of up to 80 meters per second, or about 180 miles per hour. At high winds, this rapid spinning can produce sound and vibration—in addition to disruptions in air pressure.

There are also mixed opinions on whether wind turbines emit infrasound and if the amount is any more than that emitted by diesel engines or waves crashing on the beach.

The extremely low air pressures surrounding a wind turbine could be the reason why bats die near them. A bat's lungs are very delicate, and it seems the low pressure might cause them to expand to the point of bursting blood vessels. Scuba divers can certainly attest to the effects of pressure on the human body, and the corporeal effects of sound—essentially fluctuations in air pressure that vibrate the eardrum—are well-documented. For instance, infrasound—sounds at such low frequency that they can't be picked up by the human ear but can carry through the atmosphere for thousands of kilometers—is believed to cause certain breathing and digestive problems.

Infrasound is the primary issue for those concerned about wind-turbine syndrome. They also say that audible sound and vibrations contribute to the health problems reported by some people who live close to wind farms. Symptoms of wind-turbine syndrome might include:

- headaches
- sleep problems
- night terrors or learning disabilities in children
- ringing in the ears (tinnitus)
- mood problems (irritability, anxiety)
- concentration and memory problems
- issues with equilibrium, dizziness and nausea

These symptoms have been observed and documented by a limited number of scientists studying small groups of people, and the scientific community hasn't concluded whether wind-turbine syndrome exists. There are also mixed opinions on whether wind turbines emit infrasound and if the amount is any more than that emitted by diesel engines or waves crashing on the beach. But we do know that at high speeds, wind turbines can produce an audible hum and vibration that can be carried through the air. It's these sounds and motions that provide clues and possible solutions to wind-turbine syndrome, which we'll explore in the next section.

Wind-Turbine Syndrome Explanations and Solutions

It's understood that some people who live in close proximity to wind turbines experience sleep disturbances, headaches and concentration problems. These symptoms and others could be explained as the effects of infrasound as well as constant humming and vibrations.

But here's the catch: Many of the symptoms of wind-turbine syndrome can also be caused by chronic sleep loss—simply and unfortunately an effect of living near a noise-producing entity. People who live near a highway or busy street may have trouble sleeping, which can lead to other health problems like irritability, anxiety, concentration and dizziness.

To solve this sound issue, new wind-power technology employs sound-dampening systems. Engineers are hoping that these newer systems—which can block or cancel out unstable sound frequencies—will reduce any sound-related problems associated with wind farm communities.

Researchers studying wind-turbine syndrome also recommend a larger buffer zone around wind farms to prevent people from easily fit offices. Some people say that the distance should be least 1.2 miles (2 kilometers). Others suggest at least 2 miles (3.2 kilometers). Some wind farms are currently located as close as a half mile (0.8 kilometers) from residential areas.

Whether we should be concerned with the expansion in wind power ultimately comes down to weighing the pros and cons. A cleaner, cheaper, domestically produced energy worth the potential side effects of some people experiencing headaches? The hope is that new buffer-zone regulations and sound-canceling technologies can do away with the question entirely. If the issue persists, we'll have to decide whether wind power is important enough to pursue anyway—much like deciding whether building a new, noisy highway that would reduce congestion and increase commerce is worth some inconvenience people losing sleep.

Birds & Bats

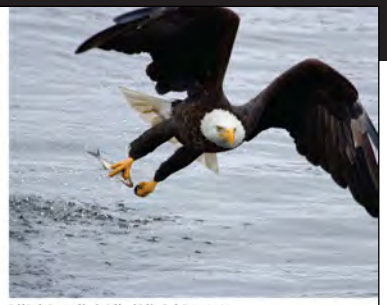
by Philip Warburg

Altamont Pass Wind Farm

Many associate Altamont Pass with the mayhem that ran throughout rock music festival at the local speedway in 1969, with 300,000 in attendance and Hells Angels hired as security guards. Unfortunately for wind developers, Altamont has also earned infamy as the place where closely packed clusters of wind turbines have slaughtered tens of thousands of birds, including the federally protected golden eagle.

Over the years, multiple studies have documented the alarming rate of bird mortality at Altamont. In 2004, the Tucson-based Center for Biological Diversity filed suit against Altamont's multiple owners, alleging that 17,000 to 26,000 raptors, or birds of prey, had been killed since the wind energy complex began operating in the 1980s. The primary culprits identified in the suit were the "small, inefficient, obsolete, first-generation wind turbine generators" -with more than 5,000 of them producing only 584 megawatts of rated power. That same year, the California Energy Commission reported the results of multiyear survey of bird deaths at Altamont. Out of 1,766 to 4,721 birds killed each year, 75 to 116 were golden eagles. The report's authors suggest a number of mitigation actions, but their primary recommendations was to replace the wind farm's low-output turbines with a much smaller fleet of megawatt-plus machines.

In more recent years, the Center for Biological Diversity, five Bay Area Audubon chapters, and other citizen groups have continued to press for tougher bird protection measures, at times working in concert, at times bitterly disagreeing over the adequacy of proposed sites. Finally, in December 2010, the California Attorney General's Office presided over a settlement that committed the wind farm's largest stakeholder, NextEra Energy Resources, to replacing 2,400 again Altamont turbines with 80 to 120 new ones of equivalent overall capacity by 2015. This effort is likely to be a boon rather than



Bald Eagle: Protected by the Bald and Golden Eagle Protection Act

a burden to NextEra, as most of the targeted turbines are already in very poor shape and may be barely functional by the replacement deadline. An official of a smaller Altamont wind company commented at the time of the settlement: "The wind smiths out there hold the turbines together with duct tape and wire."

The killing of birds remains a real concern at wind farms built in recent years, but local citizens and conservation groups have learned to be much more proactive in monitoring wind farm plans as they are being developed, raising objections to ill-chosen sites and intervening early enough in the game to bring about necessary changes. For some years now, Angelo Capparella, an ornithologist by training, has been closely tracking wind development plans in the heavily farmed counties surrounding Bloomington, Illinois, where he teaches systemic and evolutionary biology at Illinois State University. In 2006, he reviewed the draft environmental impact statement for the 100-turbine White Oak Wind Energy Center, a dozen miles northwest of the city-all part of the due diligence on emerging wind projects that he performs for the local Audubon Society chapter. Studying the document, he noticed some glaring gaps. First, he claimed, it failed to give proper attention to adjacent nature reserves. Second, he maintained that it underestimated the number of raptors, including bald eagles, that migrate through the Mackinaw River valley, where the project was to be built. He was further disturbed that no one from the Chicago-base wind development company, Invergery, had contracted him or, to his knowledge, anyone else at Audubon, Illinois State University, or the Mackinaw Ecosystem Partnership to gather data on local wildlife issues.

Appear before a county zoning board, Capparella flagged the study's shortcomings, urging the county officials to demand that the wind developer prepare a more thorough analysis. He also invited Invenergy's Project manger to his office at Illinois State and showed him the site-specific databases that should have been included in the study. "Your consultant is just looking at easy ways to find data," Capparella chided. He went on to warn the developer that Audubon would not be able to support the wind farm unless significant changes were made. Invenergy immediately responded, adjusting the project's footprint to include a one-mile setback from the Mackinaw River and a half-mile setback from a reservoir surrounded by protected land that provides valuable bird habitat.

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Though the outcome of his intervention was positive, Capparella remains wary.

Though the outcome of his intervention was positive, Capparella remains wary. Wind projects are moving forward so quickly that there often isn't time to gather reliable data that can help developer really understand how their projects may affect surrounding wildlife. "It is clear, to me at least, the farms are going up faster than the science," He told me as we sat in a motel lounge on the outskirts of Bloomington. I couldn't help feeling that the motel's bland decor matched the monotony of the surrounding countryside, utterly transformed by decades of industrialized farming. Capparella corroborated my impression that little native biodiversity is left in this vast stretch of central Illinois farm country. Born and raised in North Carolina, he has an outsider's candor when he talks about what's left of the open prairie. He chuckles as he recalls the outrage expressed by some local citizens at zoning hearing on proposed wind farms. "You're ruining my view of the pristine prairie!" soybean fields; this is not pristine prairie! Perhaps people growing up here think this is natural, but it's really quite unnatural... I just want to protect the remnants that are left."

Changes in turbine technology and wind farms design have substantially reduced raptor kills at modern wind farms like White Oak. At Altamont, the turbines that have posed such a hazard to raptors stand low, with blades circling down to within a few dozen feet of the ground. California's early wind developers packed lots of these machines into limited space, thinking they would be able to harvest more energy from the lands they leased. The combined result was too little room for raptors to maneuver as they pursued rodents and other prey on the ground below. At more modern wind farms, developers have learned to space their machines much more generously to minimize interference with the air current reaching each turbine. As a rule of thumb, the National Renewable Energy Laboratory (NREL) has recommended that the distance between turbines should be five to ten times the rotor's diameter. That can translate into gaps between turbines of a third of a mile or more for many today's larger machines.

While this broader spacing is driven by the quest for higher power output, a lucky by-product is the greater freedom of flight that the new design gives raptors and other birds within a wind farm area. The higher ground clearance of larger turbines yields a further margin of safety to raptors swooping down to hunt rodents; the lower reach of blades on today's turbines is well over 100 feet off the ground. And finally, the larger size and slower rotation of modern turbines make them easier for birds to spot and avoid colliding with. Instead of spinning at 30 to 60 revolutions per minute like the older machines at Altamont, Large commercial turbines today rotate at about half that speed.

Taller turbines with their longer blades are not an unqualified boon to birdlife, however. Biologist Paul Kerlinger has used radar to track bird migration patterns for more than a quarter-century. He reports that most migration birds travel between 300 and 2,00 feet above the ground. With the blade tips of today's turbines extending 400 feet into the air and higher, migrating birds in certain areas may be increasingly at risk, especially when flying at night or in low-visibility daytime conditions. Some experts also believe that the pulsing safety light required by the Federal Aviation Administration may attract migrating birds, particularly on night with fog or low cloud cover. "These birds orient by the star, and we hypothesize that they must think the light are

Continued on page 20.

Ten Wind Energy Mistakes

by Ian Woofenden

If you ignore the mistakes of past wind energy users, you're likely to repeat them. And I see this happen over and over again with people and companies new to the industry. If you're at all interested in wind energy, dig deep and find out what has not worked for others. Seeking out other's mistakes is a fertile field for improving your own approach. Ten of the biggest mistakes you can learn form are in this chapter.

1 Running Afoul of Neighbors and Authorities

You may need to overcome substantial legal hurdle to build and hook up your wind-electric system. If you live way out in the country, you may not be subject to such bureaucracy, or you may be able to ignore it; the closer you get to town, the harder that is.

If you don't work well with forceful people in government offices, enlist a friend government offices, enlist a friend or hire someone to do the bureaucracy surfing. If you chose to ignore the local requirements, you run the risk of stop-working order, fines, or perhaps even the disassembly of your system.

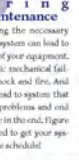
I consider getting along with your neighbors to be even more important than appeasing government representatives. Government bureaucrats tend to get out of your hair after you've jumped through all the necessary hoops, but neighbors stick around, so you want to be on good terms with them for the long haul. Here are some good strategies:

- Involve your neighbors very early in your dreaming and scheming process. Seek out their questions and objections and share your information and perspective. Your best bet is to take your neighbors on a tour of nearby systems so they can get a sense of what you're planning and what it will look and sound like.
- When your system is done, throw a neighborhood party. Invite your renewable energy friends, installer, and neighbors to celebrate and understand your achievement. And if you have battery backup, invite friends over during utility outages for promotion the value of renewable back up systems, there's nothing like it!

2 Underestimating or Overestimating Your Energy Use

If you underestimate your energy use, you may end up not designing a large enough wind energy system to cover your electricity needs. If you overestimate your energy use, you'll spend more money and make more energy than you need.

I suggest that you don't estimate your energy use at all-measure it! Knowing how much energy you actually need is the basis of a good home energy design. If it's not in an exact number of kilowatt-hours (kWh) per day, month, or year, do some more homework.



3 Overestimating Your Wind Resource

Your energy use number (kWh) gives you a goal to aim for. Your average wind speed gives you the means to reach that goal and helps determine how much money you need to invest to get there. Although you may need to do some educated estimation here (not really guessing), be very careful and conservative. Use all resources available to determine an average wind speed at hub height, and take the lower numbers. If you underestimate slightly, you'll end up with more energy than you need, which isn't the worst problem to have.

4 Using Too Small a Rotor

A grape doesn't satisfy as many hungry guests as a watermelon does, and a thimbleful of cider doesn't quench your thirst like a mug full does. If you want to catch significant amounts of wind energy, you need a big collector on your wind generator. Home-scale wind turbines, realistically, are 12 to 30 feet in diameter. Smaller wind generators make small amounts of energy.

5 Buying a Light-duty Turbine on a Heavy-duty Site

If you buy a lightweight, high-speed wind turbine, don't expect it to last long, especially if it's in a severe environment. Your grandmother's silver may be passed down to your grandchildren's grandchildren; a plastic fork will likely break before it's fed you two meals. In the same way, a light-to-medium-duty wind generator on a medium to heavy-duty site will disappoint you.

Gauging what duty of turbine your potential site needs is somewhat difficult-neither factor comes with labels telling you it's heavy, medium, or light duty. I consider sites with more than a 10 mph average and peaks above 60 mph to be more than medium duty. If you live with a 7 mph average and never see 50, you may be able to consider some of the lighter equipment available. Deciding what is and isn't a heavy duty wind turbine is harder. Weight plays into it, but quality of design and construction is even more important. Look for equipment that has stood the test of time for years in the field.

6 Buying a Wind Generator Without Customer Support

In North America, even though you can certainly find hundreds of wind generators you can order if you have your credit card handy, I'd recommend only a handful of them. That's because I know from years of experience that wind generators almost always need manufacturer support (in terms of warranty, parts, and expertise). I recommend only wind generators that have that support and that have it in your own country. If you build your own wind generator, you are the factory, and you provide the support. But if you buy a manufactured machine, it should come with support. Period.

7 Using too Short a Tower

Productive wind generators live on tall towers-this idea is almost impossible to overemphasize. No matter how many people try to bend and break this principle, it's just physical reality that there's more wind the farther you get away from obstructions. The appropriate place to capture meaningful amounts of wind energy is on tall towers.

8 Considering Only Upfront Costs

If you buy a house and plan only for the market price of the house, you may end up 30 years later with a dilapidated shell of a house and a big pile of debt. Your need to consider costs such as financing, maintenance, repairs, and the like. It's no different with a wind-electric system. When you make your financial plans and calculate your financial return, you must look at life-cycle cost, not just upfront cost. The full cost includes not only the dollars you pay for maintenance and repair but also ongoing fees associated with operating the system, plus any time you put into it.

9 Using "Creative" Design or Parts

Wind energy seems to be a magnet for creativity. And if you're a renewable energy homebrewer with a preference for trying out our wild ideas on yourself, go for it! (Just make sure you know how to avoid shocks and falls and keep your equipment safe.) The situation gets dicey when experimenters and investors want to try their ideas out on other, with other people's money-maybe even yours. Testing innovative ideas can be exciting, but it may be a recipe for disaster. I recommend that you avoid the following:

- Products without a track record (at least three years) and a warranty
- "Unique" products: good design principles lead to common designs more often than wildly unusual design.
- Unconventional towers using buildings, trees, or elaborate mechanisms
- Wind generator or tower design that you can find from only one source.

10 Ignoring System Maintenance

Avoiding or ignoring the necessary maintenance on our system can lead to gradual wearing out of your equipment. It can lead to dramatic mechanical failure. It can lead to shock and fire. And in all cases, it does lead to system that suffer performance problems and end being more expensive in the end. Figure out whatever you need to get your system on a maintenance schedule!

Know the Lingo by Ian Woofenden

Generator:
The part that makes the electricity by moving magnetism past copper coils.

Home-scale turbine:
Between 8 and 25 feet in diameter and provide 1,000 and 15,000 kWh per year.

Net metering:
An electricity policy for consumers who own renewable energy facilities (such as wind power and solar power) which allows them to use electricity whenever needed while contributing their production to the grid.

Rotor:
The combination of blades attached to a hub that are the main wind collecting device.

Tail vane:
A passive guiding system to turn the turbine into the wind.

Tower:
One of the most important components. It's what brings the turbine up to where the wind is.

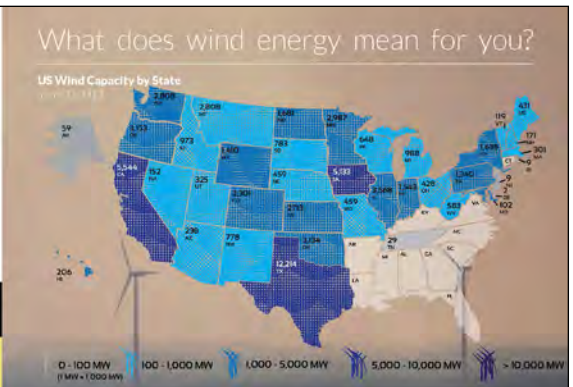
Transmission Wires:
Deliver the electricity to the ground and then on to power your home.

Utility-scale turbine:
Starting at 150 and going to 400 ft in diameter, they are developed to deliver electricity to the grid and can power up to 300 homes.

Watts:
A watt is a rate at which work is done the same as mph is the rate at which an object travels.

Watt-hour (kWh):
A unit of energy. 1Wh = 1,000 kWh

What does wind energy mean for you?



Total installed wind capacity in U.S. *60,007,000 kW*

Average American home power usage *30 kWh/day* ÷

Number of homes that operating wind power capacity can power **15 million**

Number of wind-related jobs in the U.S. at the end of 2012. **80,7000**

Across fields such as development, siting, construction, transportation, manufacturing, operations, and services)

Data taken from the AWEA U.S. Wind Industry Second Quarter 2013 Market Report. Released July 30, 2013.

I was, if anything more curious about Pickens himself than about the project he was planning. Pickens's recent decisions to advocate renewable energy struck me as a promising development for our energy future. As Pickens goes, I thought so goes America: his ithe oil titan who comes the closest (in both his achievements and his inherent contradictions) to being a modern-day John D. Rockefeller, and his choice represented a 180-degree shift in energy policy.

Pickens made his billions as an oil entrepreneur overseeing the production of more than 900 million barrels of petroleum from wells throughout the world. As a corporate profiteer, he famously tried to snatch Gulf Oil from the grip of Chevron. As a political booster, he has spent fifty years profligately supporting Republican campaigns. He spent millions to fund the Swift-boat ad campaign that damaged John Kerry's bid for the presidency in 2004—a stance for which he voice no regret to this day. Pickens is, in short, an unlikely hero for the modern day environmental movement.

But in the summer of 2008, Pickens announced what he called the "Pickens Plan," a massive push to free America from its dependence on foreign oil and to develop clean alternative sources of energy, including natural gas, wind, and solar power. "I've been an oilman my entire life," he said, "but this is one emergency we can't drill our way out of," to some traditionalist in the oil industry, Pickens is a defector, a turncat of sorts. Others—environmentalists and progressive included—consider him an enlightened soul, a converted sinner, a man in his twilight years (Pickens is in his eighties) who say his industry hurtling toward doom and sought salvation in the clean energy gospel.

> Pickens has brought an unexpected cowboy swagger to the clean-energy agenda, describing the renewable industries, for instance, as "hotter'n a three-nutted tomcat."

Texas Tribune CEO Evan Smith and T. Boone Pickens at "The Pickens Plan Lit" at The Texas Tribune Festival on Sept. 25, 2011.

Along with the Pickens Plan came a massive PR blitz to promote it, a $58 million media campaign including print ads and TV and radio commercials as well as appearances on every program from Charlie Rose to ABC's The View. In this, Pickens has aimed to create an unusual new embodiment of the 1960s grassroots environmental campaign, calling his crusade "a war without guns" and recruiting citizen-soldiers in a video posted on this Web site: "We have to have an army and you're part of the army. Bring your friends, family, your church group, everybody together that you can think of." More than a million and a half Americans have signed on to fight for his agenda.

I met Pickens on what turned out to be fitting day for a discussion of wind energy—a blustery morning that, by the time I arrived at his office in downtown Dallas, was quickly evolving into a violent electrical storm. Wind, Pickens assured me, is a long-term investment that promises huge financial rewards: "I'm out to hunt elephants—I don't get off the trail for rabbits." His office attest to a man who hunts big game: sculptures of bucking giant gilt-framed oil painting of sunsets, running horses, and the Wild West; and photos of Pickens smiling alongside Republican presidents from Richard M. Nixon to George W. Bush, with jaunty personal notes from each commander-in-chief displayed.

I was surprised by Pickens's appearance and manner. He wasn't the ruthless, swashbuckling figure of legend who'd inscrutably stared from the cover of Time in 1985 above the headline "The Takeover Game—Corporate Raider T. Boone Pickens." Instead, he was approachable and good-natured, even paternal in his manner. A fit, sturdy man with a tidy crop of silver hair, Pickens works out daily with a team of personal trainers and appears younger than his years, his aged belied only up close by a discreet hearing aid, a slight hesitation in his walk, and an occasional tired droop to his steel blue eyes.

Pickens has brought an unexpected cowboy swagger to the clean-energy agenda, describing the renewable industries, for instance, as "hotter'n a three-nutted tomcat." He took polite but firm exception to mention of Al Gore's climate change initiatives. Though Pickens does see global warming as "a serious concern," he makes no pretense to being an environmental do-gooder: "Don't think I'm Al Gore. I'm not going to do a major investment in wind farms for the environment first and money second. I'm a fella who thinks with my wallet."

Pickens believes that the world has already reached peak oil. "The industry can at a maximum produce 85 billion barrels a day, while the global demand is 86.8 billion barrels," he told me. "You bet your ass that demand is gonna keep rising, along with the price." While he has cheered proposals to open protected lands and offshore areas to drilling, he said that's only one small element of sound long-term national energy strategy.

Pickens believes that America can cut its oil dependence in half by shifting our transportation sector to natural gas (for heavy vehicles) and electricity (for passenger cars) while substantially increasing wind development to supply 20 percent of our electricity demand in under a decade—up from roughly 1 percent today. "We also need efficiency, solar, nukes, and alternatives we can get," he said, but stressed his belief that wind has the biggest growth potential.

For all his emphasis on financial pragmatism, Pickens confessed to having a sense of "mission" in his current work. "I think I was put here for two reason," he told me. "To make money and be generous with it, and to find good ideas and get them into play. I think I've got a solution to peak oil. The only other plans I've seen are to roll over and die."

Wind Turbine Construction

Is it actually possible, as Pickens claims, that renewables such as wind could become the new American fuels, eventually replacing coal and oil entirely in powering our cars, homes, and industries?

Texas, which has among the strongest and steadiest wind patterns in the United States, lies at the base of a "wind corridor" that produces reliable wind speeds of between 14 and 18 miles per hour. The corridor stretches up the center of the country through the heartland an dinot the Dakotas, fanning out to Illinois and Wisconsin in the east and Montana in the west. The raw capacity in there: "The total potential wind development throughout the corridor is 400,000 megawatts," As Pickens explained. (One megawatt powers roughly a thousand average sized home.) "That spells opportunity, serous, big-deal opportunity."

The "big deal" raw capacity is also there in solar. Enough solar energy beat down on the surface of the earth every hour to supply 100 percent of the world's energy needs for a year. In theory, the state of Nevada alone could produce enough electricity through solar technology to power all American businesses and homes.

America's most successful energy innovator, Thomas Edison, was hopeful about the future of these power sources long before terms such as renewable energy existed. "This scheme of combustion to get power," he said in 1931, "makes me sick to think of it—it is so wasteful. ... You see, we should utilize natural forces and thus get all of our power. Sunshine is a form of energy, and the winds and the tides are manifestation of energy. Do we use them? Oh, no! We burn up wood and coal, as renters burn of the front fence for fuel. We live like squatters, not as if we owned the property."

The challenge is figuring out how best to harness these natural forces. Once they are harnessed, the challenge becomes one of transporting huge new volumes of clean electricity great distance across our already overburdened and inefficient grid—the 900 miles for Pampa, say, to power the light in my home Nashville.

Pickens is a key leader in the American effort to develop renewable energy sources and an improve

electric grid, but he's far from alone. Hundreds of big investors and businesses across the globe are currently making plans fee—and in some cases betting their very economic survival on—the future of renewables.

In 2008, $47.5 billion in wind turbine investments were made around the world—producing 27,000 megawatts of clean electricity or enough to power approximately 20 million American homes. Roughly a third of these new megawatts were produced through projects base in the United States. Joseph Romm, a former high-level official at the Department of Energy, predicts that, given the increasing global demand for clean power, "wind investment will quadruple within ten years, even in a down economy." That's the good news. The bad news is that this money may go primarily to overseas manufacturers.

American companies helped invent and produce the first modern commercial wind turbines more than sixty years ago—but most manufacturers are now European, thanks in part to government mandates and industry incentives that have been widely implemented in Europe. Today, six of the world's ten leading wind turbine manufacturers are located in Denmark, Germany, or Spain. We've lost the competitive edge in solar, too: more than 90 percent of solar-electric panel manufacturing happens outside of the United States. "Up until recently," explained Bracken Hendricks, and energy policy expert with the Center for American Progress, "Congress allocated a smaller annual budget for clean energy R 7 D than the pet food industry did for inventing new kinds of kibbles."

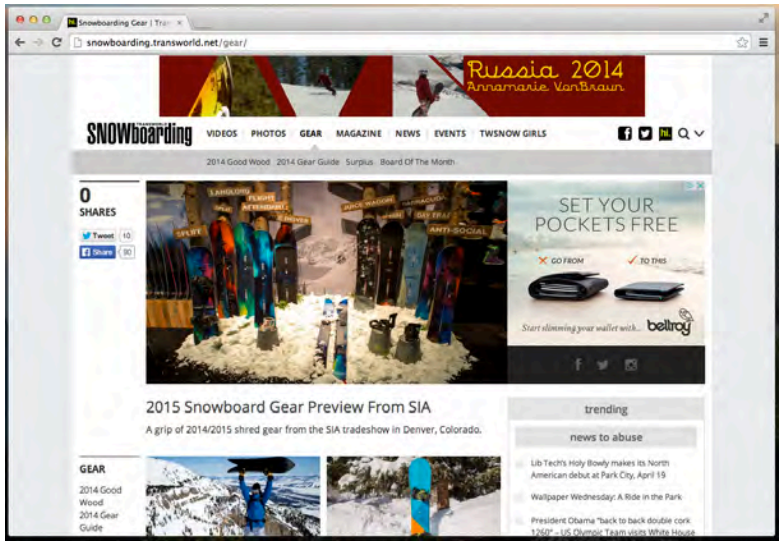
This long - starved budge received a sudden, historic windfall in February 2009 when Congress committed $70 billion over the next ten years to the development of clean technologies, smart grid upgrades, and fuel efficient vehicles. President Obama's mission for such an investment—part of his American Recovery and Reinvestment Act—was to take "a big step down the road to energy independence and lay the groundwork for a new green energy economy that can create countless well-paying jobs."

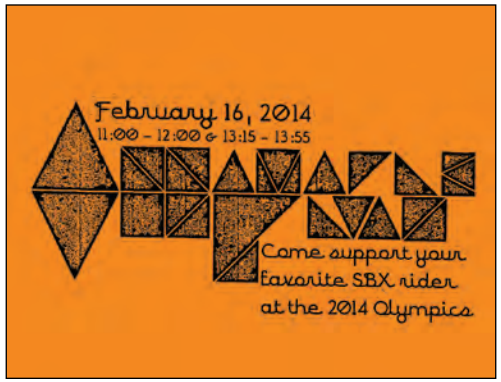
Some critics fear that such massive public investments will stifle ingenuity, but similar efforts in the past have done just the opposite—pushing the mass production of new technologies into high gear. Federal investments during World Wars I and II encouraged innovations in cars and trucks, airplanes, oil pipelines, and plastics; the rural electrification program under Roosevelt created hundreds of thousands of miles of the electric grid. Government agencies such a NASA and Agency (DARPA) created many of today's technologies—microwaves GPS navigation systems, microchips and computers, the internet, and cellphones, among countless others. Private companies went on to make billion of dollars through refining, adapting, and improving these technologies for mainstream use, in turn benefiting the daily live of millions of Americans.

Alter Ego Promotional Material

Print Design / Branding

Annamarie VonBraun, my Olympic snowboarding alter ego.
Create an alter ego, and then design a series of print material to promote them including a postcard, a billboard, a sticker, and an Internet banner ad.




February 16, 2014
11:00 - 12:00 & 13:15 - 13:55
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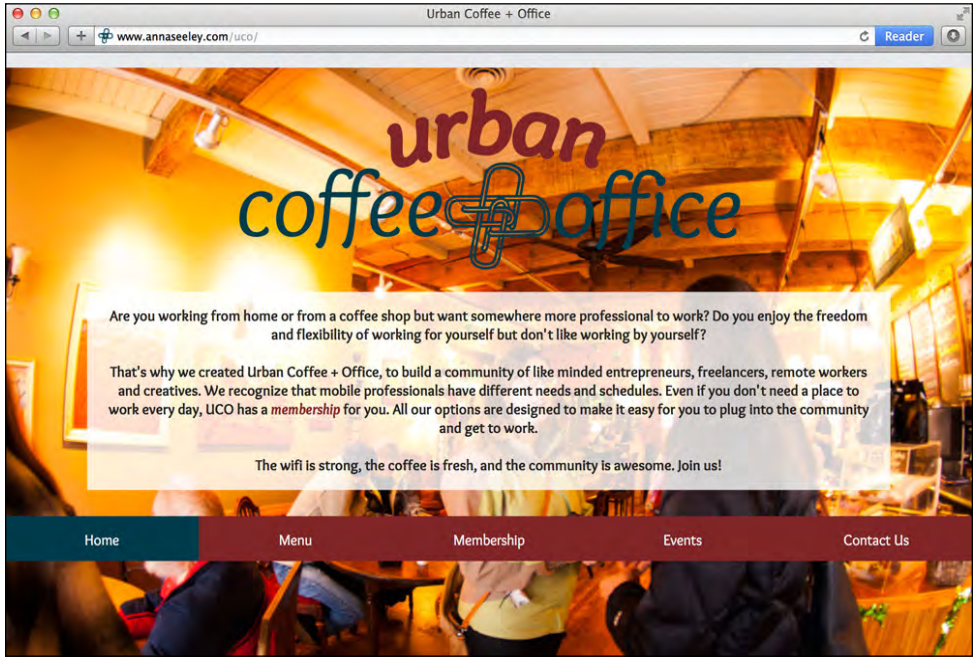
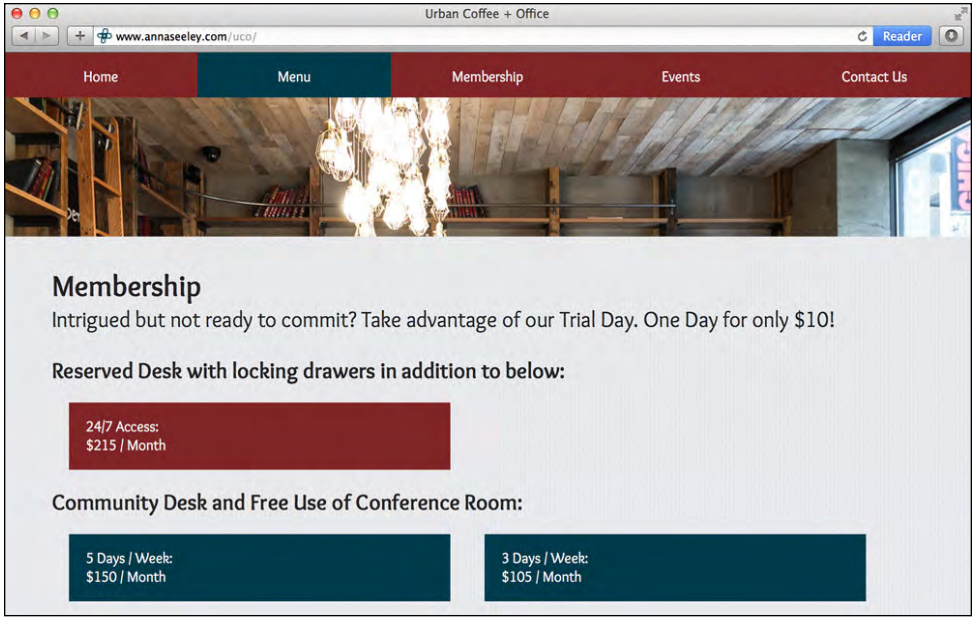
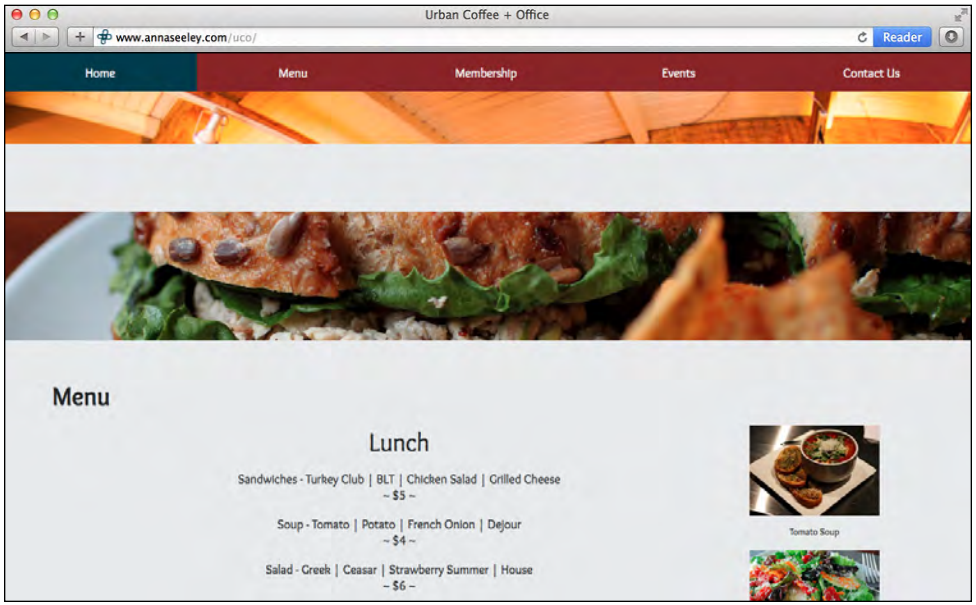






Thievery Corporation Album Cover

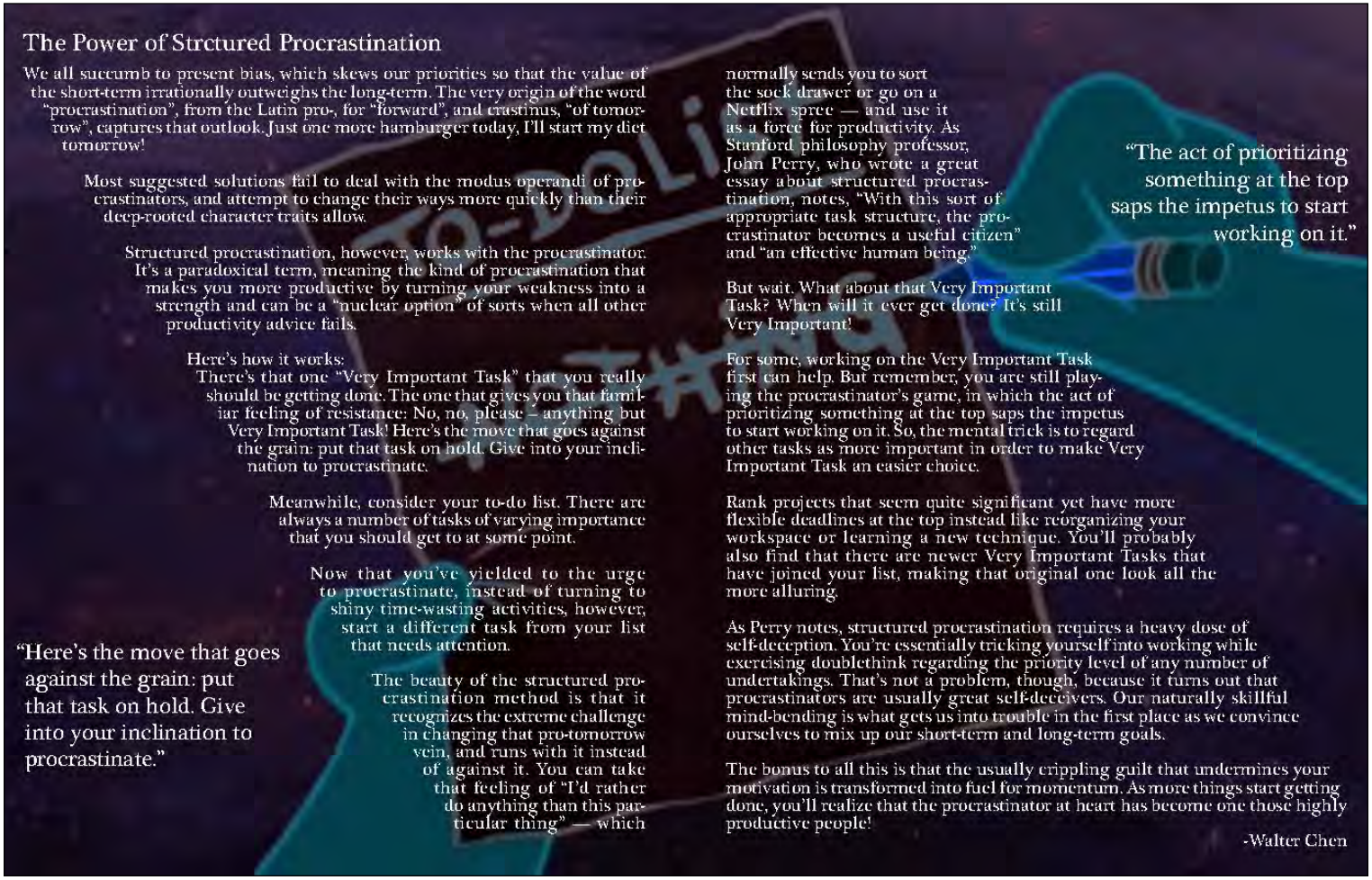
Print / Packaging Design

Design and album cover and inner sleeve.

12" PAPER SLEEVE
TRIM SIZE: W: 23.6534 H: 13.8133

Publication Design

Research two different publications and design a layout for a given article in keeping with the style of each. I choose ADBUSTERS and Fast Company.



The Power of Strctured Procrastination

We all succumb to present bias, which skews our priorities so that the value of the short-term irrationally outweighs the long-term. The very origin of the word "procrastination", from the Latin pro-, for "forward", and crastinus, "of tomorrow", captures that outlook. Just one more hamburger today, I'll start my diet tomorrow!

Most suggested solutions fail to deal with the modus operandi of procrastinators, and attempt to change their ways more quickly than their deep-rooted character traits allow.

Structured procrastination, however, works with the procrastinator. It's a paradoxical term, meaning the kind of procrastination that makes you more productive by turning your weakness into a strength and can be a "nuclear option" of sorts when all other productivity advice fails.

Here's how it works:
There's that one "Very Important Task" that you really should be getting done. The one that gives you that familiar feeling of resistance: No, no, please – anything but Very Important Task! Here's the move that goes against the grain: put that task on hold. Give into your inclination to procrastinate.

Meanwhile, consider your to-do list. There are always a number of tasks of varying importance that you should get to at some point.

Now that you've yielded to the urge to procrastinate, instead of turning to shiny time-wasting activities, however, start a different task from your list that needs attention.

"Here's the move that goes against the grain: put that task on hold. Give into your inclination to procrastinate."

The beauty of the structured procrastination method is that it recognizes the extreme challenge in changing that pro-tomorrow vein, and runs with it instead of against it. You can take that feeling of "I'd rather do anything than this particular thing" — which normally sends you to sort the sock drawer or go on a Netflix spree — and use it as a force for productivity. As Stanford philosophy professor, John Perry, who wrote a great essay about structured procrastination, notes, "With this sort of appropriate task structure, the procrastinator becomes a useful citizen" and "an effective human being."

"The act of prioritizing something at the top saps the impetus to start working on it."

But wait. What about that Very Important Task? When will it ever get done? It's still Very Important!

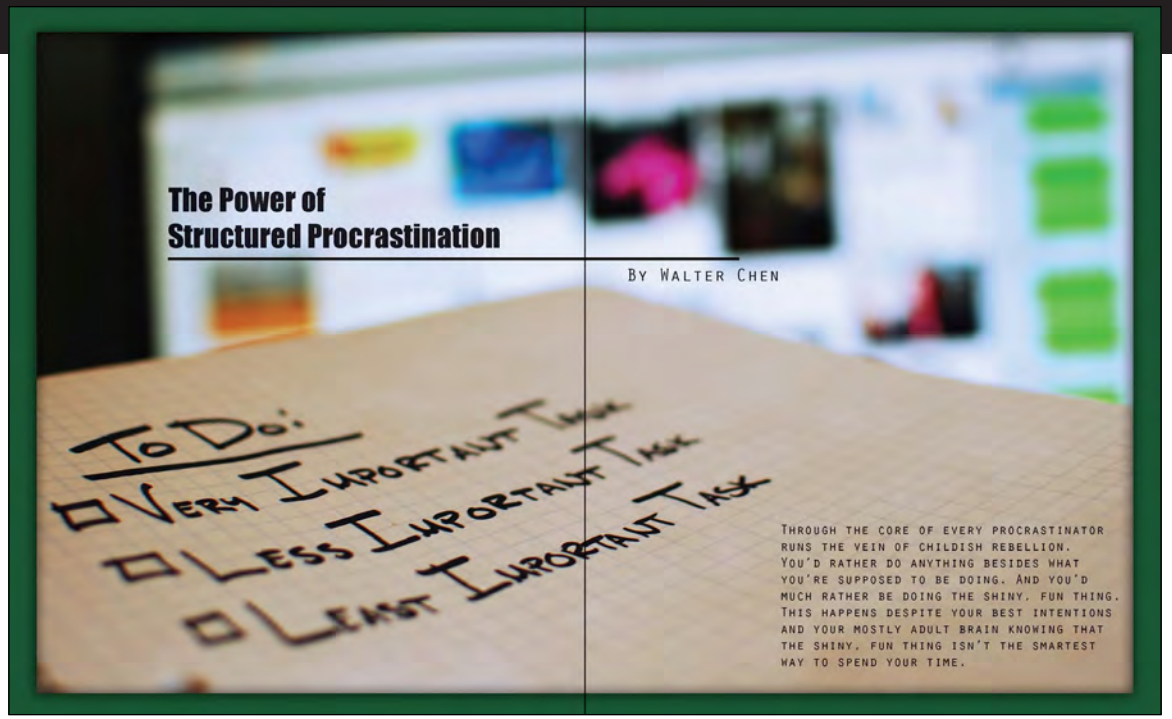
For some, working on the Very Important Task first can help. But remember, you are still playing the procrastinator's game, in which the act of prioritizing something at the top saps the impetus to start working on it. So, the mental trick is to regard other tasks as more important in order to make Very Important Task an easier choice.

Rank projects that seem quite significant yet have more flexible deadlines at the top instead like reorganizing your workspace or learning a new technique. You'll probably also find that there are newer Very Important Tasks that have joined your list, making that original one look all the more alluring.

As Perry notes, structured procrastination requires a heavy dose of self-deception. You're essentially tricking yourself into working while exercising doublethink regarding the priority level of any number of undertakings. That's not a problem, though, because it turns out that procrastinators are usually great self-deceivers. Our naturally skillful mind-bending is what gets us into trouble in the first place as we convince ourselves to mix up our short-term and long-term goals.

The bonus to all this is that the usually crippling guilt that undermines your motivation is transformed into fuel for momentum. As more things start getting done, you'll realize that the procrastinator at heart has become one those highly productive people!

-Walter Chen



The Power of Structured Procrastination

By Walter Chen

Through the core of every procrastinator runs the vein of childish rebellion. You'd rather do anything besides what you're supposed to be doing. And you'd much rather be doing the shiny, fun thing. This happens despite your best intentions and your mostly adult brain knowing that the shiny, fun thing isn't the smartest way to spend your time.

We all succumb to present bias, which skews our priorities so that the value of the short-term irrationally outweighs the long-term. The very origin of the word "procrastination", from the Latin pro-, for "forward", and crastinus, "of tomorrow", captures that outlook. Just one more hamburger today, I'll start my diet tomorrow!

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Skate OMA Poster Series

Print Design

Local government is sponsoring an event to raise money for a new indoor skate park. Event will include a skateboard competition, DJ Battle, and Graffiti Demos. Poster copy is given. Design a series of 3 posters to advertise the event.


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July 9 & 10, 2013
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