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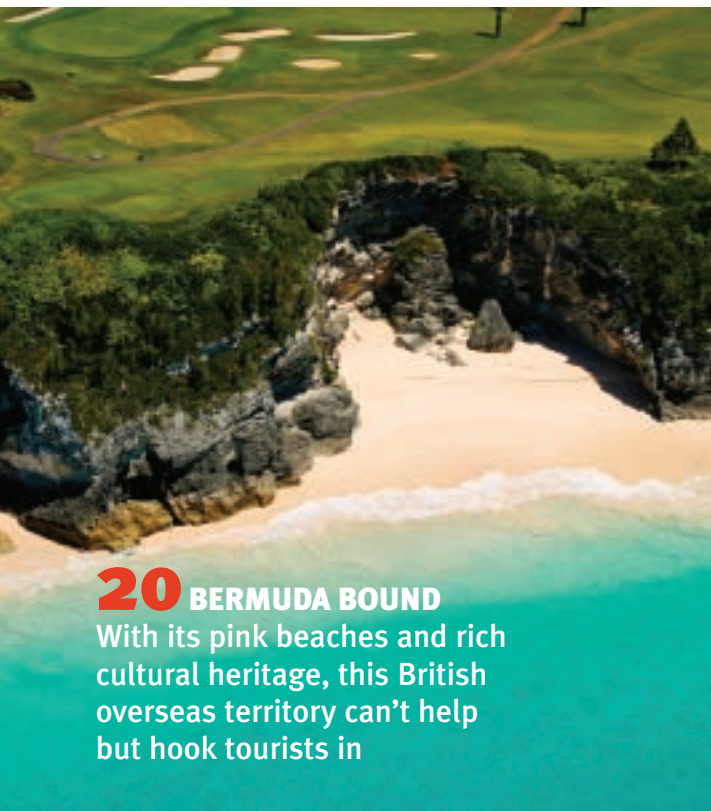
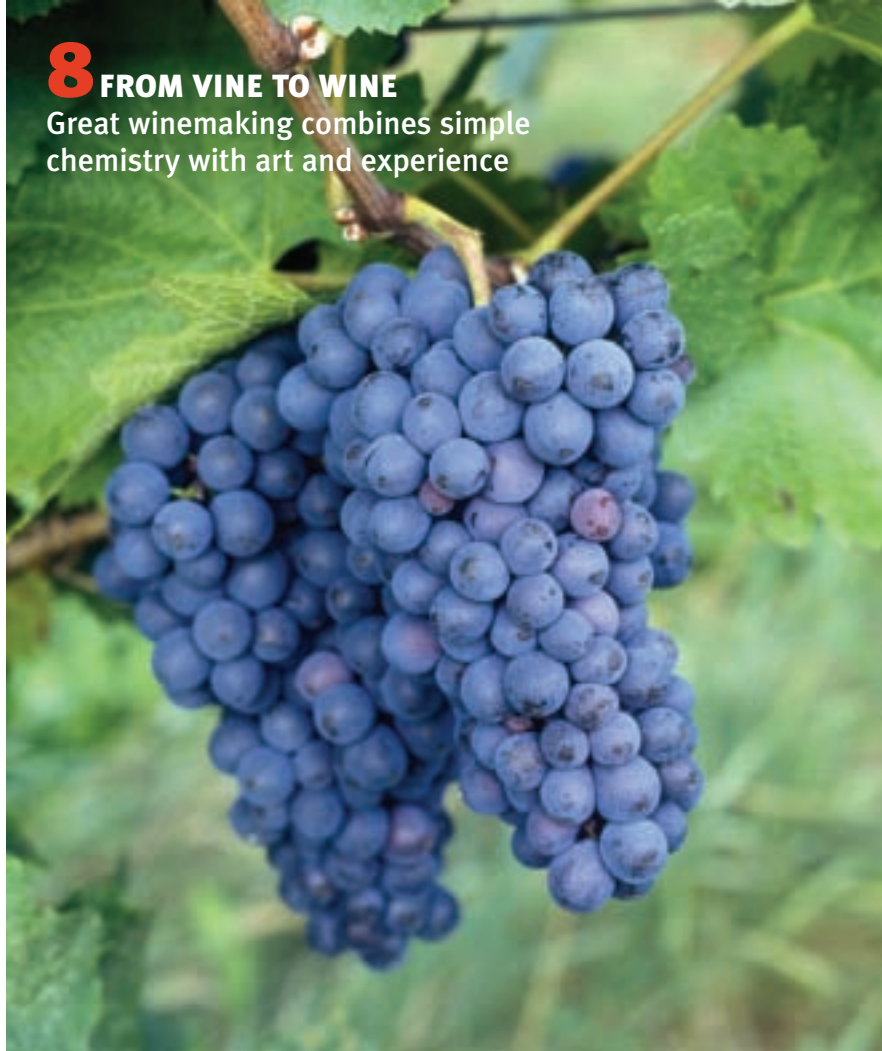
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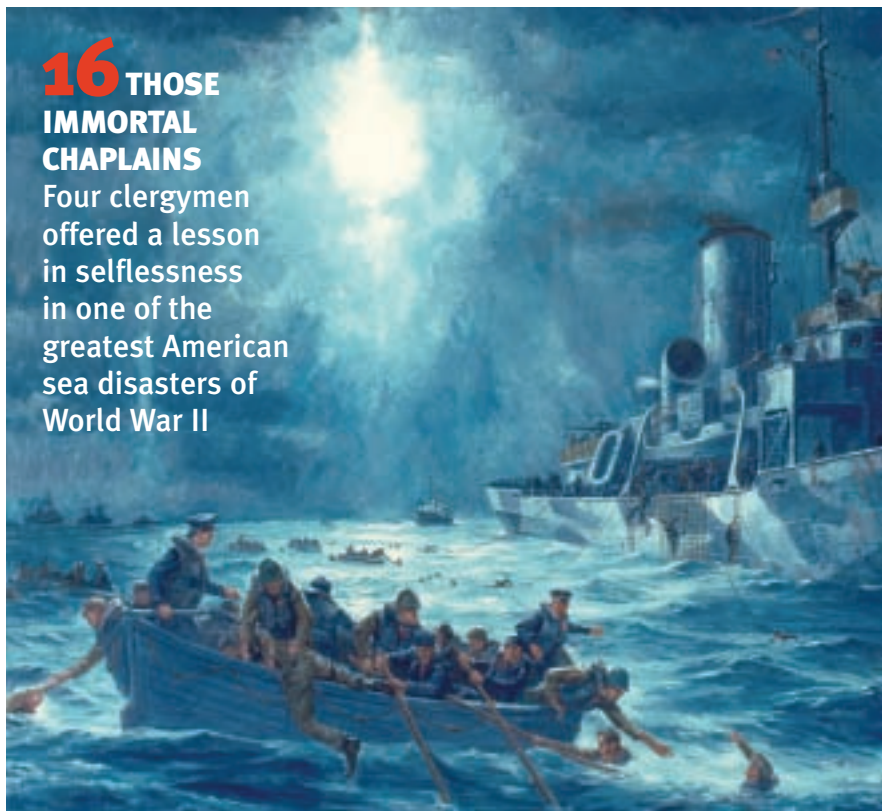


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Thanks for reading,

Dick Goodall

BOSS

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Publisher

Dixon Valve & Coupling Company

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Editorial & Design

Alter Custom Media

www.altercustommedia.com

Art Director

Kim Van Dyke

Copy Editor

Chris Zang

Please submit address changes to:

Alter Custom Media

Attn: Adrienne Gieszl

1040 Park Ave., Suite 200

Baltimore, MD 21201

443-451-0723

Fax: 443-451-6025

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Dixon Valve & Coupling Company

800 High St.

Chestertown, MD 21620

877-963-4966

Fax: 800-283-4966

www.dixonvalve.com

Email questions or comments about *BOSS* to: boss@dixonvalve.com

Lessons in Leadership

BY STEVE CROKER, LTGEN, USAF (RET)

Long after I graduated from the U.S. Air Force Academy, my classmates decided to collect our insights as a way to “pass on the lore” to future generations. My friends at Dixon Valve asked me to share my observations about leadership with the readers of BOSS.

In our academy days, we had a series of lectures in leadership. At the time, I grasped that early sponsorship of bright junior officers was a critical factor in their later success. I came to appreciate, if not during the lectures themselves but during combat over Vietnam, that leadership is what it is all about. Our commander was an incredible combat leader and the wing's success was directly attributable to his leadership prowess. In later years, I learned firsthand that he actively kept in touch with his guys and mentored them along the way by letter, calls and visits. That mentoring continued long after he retired to the ski slopes of Colorado. The rolls of future Air Force wing commanders and general officers would contain the names of many whom he counseled and mentored and cajoled and helped. The first practical lesson for me: *Leadership doesn't stop when you leave the unit.*

Later I had the good fortune to work for a four-star general when he served as CINCSAC (commander in chief, Strategic Air Command). He never gave up on his guys. He treated everyone as though they had unique self-worth. He gave people leadership challenges they never would have dreamed up on their own. He, too, never stopped caring, working with and for you long after you (or he) moved on. The second practical lesson for me: *Be thoughtful, be nice. There is nothing in your job description that requires you to be an unmitigated S.O.B.*

As a new general officer myself, I worked for another CINCSAC.

He excelled at all that Robin Olds and Russ Dougherty [had done so well]. He used to keep our medical records in his office. We had to check them out to go to the hospital. He rode roughshod over anyone who smoked or was overweight and made sure his guys' physical health would support the physical and mental challenges he provided. He and his wife were a great team and they worked to ensure that their folks were successful teams. The third practical lesson for me: *Leadership is about all aspects of life, personal as well as professional.*

In the Joint Staff, I worked for two different chairmen, Joint Chiefs of Staff. They each had an amazing grasp of the obvious and an ability to make complex truths and realities understandable. But what stood out for me was their ability to laugh at themselves and to use humor as an effective leadership tool. The fourth practical lesson for me: *Don't*

The fourth practical lesson for me: Don't take yourself too seriously. Laughter and self-deprecating humor are wonderful leadership tools for your kit bag.


take yourself too seriously. Laughter and self-deprecating humor are wonderful leadership tools for your kit bag.

When I retired, I became a senior mentor (at the operational level of war) for the Joint community and worked for a past commander of the Joint and Combined Commands in Korea. Although he had a Ph.D. in operations research, and was every bit as smart as anyone I'd ever worked for, he excelled at making others feel good about themselves and their efforts to solve knotty problems. He regaled people with simple, funny stories about the truths he'd learned along the way, struggling with the same challenges they were

wrestling with. Wherever we went, people lined up to say hello, remind him of their service together, and he always took time to welcome them, remember them, joke with them, call them by some nickname he'd made up especially for them. The fifth practical lesson for me: *Leadership is about them, not you. People will do amazing things if someone loves them and cares for them, and wants them to do well.*

Now I am retired from mentoring and have assumed the role of apprentice to a custom furniture maker and artist. I make more mistakes, and do more dumb things than I ever thought imaginable. My boss never gets mad, never raises his voice, never gives up on me and my efforts to learn the trade. He always reminds me that he has already made all those mistakes many times over. He helps me fix the problem and pats me on the back when I do something right. The last practical lesson:

Leadership is understanding that someone else can't make any mistake you haven't already made.

In my 36 years in the Air Force, the 12-plus years of mentoring new flag and general officers, and more recently during five years as a now humble, wet-behind-the-ears apprentice, I have arrived at one final lesson: *Leadership is ultimately about payback. I didn't make it on my own. I didn't get to be a general officer on merit. I didn't even succeed solely on good fortune (though there was a lot of that). I did as well as I did because others invested nickels and dimes, time and energy, in me. They deserve a return on their investment.* 



Waite Phillips donated most of the land that is now Philmont Scout Ranch to the Boy Scouts of America.

Oil Baron with a Heart

Hardworking Waite Phillips believed in sharing the wealth

BY MARIA BLACKBURN

Waite Phillips was an oil baron and businessman whose success in the oil fields of Oklahoma and prowess as a real estate investor made him a millionaire many times over. Phillips was good at making money. But he was even better at giving it away.

Phillips' philanthropic efforts included such acts of generosity as giving his 127,000-acre New Mexico ranch to the Boy Scouts of America, donating his elaborate 72-room Italianate mansion and 22 acres of lavish gardens to the city of Tulsa for an art museum and supporting a variety of civic, educational and humanitarian causes ranging from Catholic hospitals to community centers. He enjoyed hunting for money more than he did

holding it, and so he made sharing his earnings with others one of his greatest priorities.

"The only things we keep are those we give away," Phillips said once. "All things should be put to their best possible use."

Phillips was born on a 40-acre farm outside of Conway, Iowa, on Jan. 19, 1883. One of 10 children born to Lucinda and Lewis Phillips, Waite admitted he had "restless feet" and at the age of 16 he left home with his identical twin, Wiata, to explore the West. They traveled by freight train, working here and there as they went. Three years into their journey, Wiata had appendicitis and died in Spokane, Wash. Waite was devastated. "That was

a terrible loss for my dad," Elliott "Chope" Phillips said in a "Voices of Oklahoma" oral history interview in 2009. "They were almost like the same person. They thought alike and they were just inseparable."

Waite worked a few different jobs before taking a bookkeeping job with his brothers Frank and L.E., who would go on to found Phillips Petroleum in 1917. He worked for his brothers for 11 years, learning the oil business from the ground up, first as a roustabout and then as a field superintendent. In 1909, he married Genevieve Elliott, a banker's daughter. Then in 1914 at the age of 31, Waite decided to withdraw from his brothers' oil interests in Oklahoma and go out

on his own. Frank, who was as strong-willed as his younger brother, wasn't happy with the decision. "We Phillipses just can't get along with each other when it comes to business," he said.

Waite Phillips didn't strike it big at first in the oil fields, but his persistence and hard work paid off and within a few years he built up a fully

integrated oil company that combined production, refining and marketing. By the time he was 38, his wells were producing 40,000 barrels a day.

Phillips maintained that he was lucky, but luck wasn't the sole reason for his success. He worked six days a week and believed in buying leases everywhere there might be oil. If he struck it rich, he shared the wealth with his employees. "There is greater

honor in being the best ditch digger in a gang than in being a mediocre president of a company, because the first man has done something by means of his own efforts, while the latter is content to let the dignity of his position bear him along," he is quoted as saying in *Oil Man: The Story of Frank Phillips and the Birth of Phillips Petroleum* by Michael Wallis (St. Martin's Griffin, 1988).

In 1925, he sold the Waite Phillips Co. for \$25 million cash (\$311 million today), and by the next year, 43-year-old Waite was worth \$40 million (nearly \$500 million today). He turned his attention to investing in stocks and bonds, real estate investing and ranching. He bought a sprawling ranch in the mountains of New Mexico and

named it Philmont; he loved to go there and fish and relax. In 1927 he built Philbrook, his grand mansion in Tulsa with marble floors and elaborate gardens. Humorist Will Rogers upon entering Philbrook's great hall remarked, "Well, I've seen Buckingham Palace, but it hasn't anything on Waite Phillips' house."

The oil baron proved to be as smart in philanthropy as he was in business. When he donated his Tulsa mansion to the city and his New Mexico ranch to the Boy Scouts of America, he included office buildings as part of the gifts to provide income that would help support the properties and allow them to be shared with visitors for years to come.

"He thought that money should be used as a tool to help people, help society, help something," Chope Phillips said of his father, who died in 1964 at the age of 81. "And if you aren't going to put it to good use, then you shouldn't have it." ■

There is greater honor in being the best ditch digger in a gang than in being a mediocre president of a company."

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from
VINE to
WINE





Though variations—and innovations—abound, winemaking today is a remarkably consistent cycle of planting, harvest, fermentation and bottling

BY MARY K. ZAJAC

WINEMAKING IS very, very simple,” says John Williams, only slightly tongue in cheek. “You have to get the juice out of grapes and ferment it into wine.”

Williams should know. As owner, founder and winemaker at Frog’s Leap Winery, he’s perfected a clean, crisp Sauvignon Blanc, and blended Cabernet Sauvignon and Cabernet Franc to create Rutherford, a red wine that captures the specific flavor of this portion of Napa Valley, Calif. He’s experimented with a

combination of stainless steel and French oak barrel fermentation in his pursuit of the perfect Chardonnay. He’s even created California versions of classic German dessert wines, giving them fanciful names like Frögenbeerenauslese and Leapfrögmilch.

And after 30 years in the wine business, he’ll be the first to tell you that wine is not solely the work of human hands or chemistry or the result of the crushing and de-stemming, fermenting and aging that takes

place inside a winery. Williams’ focus, he says, is on “grape-growing rather than winemaking” because he believes wines are made in the delicate relationship between the soil and the climate “rather than the hand of the winemaker.”

“There is no word for winemaker in the French language,” says Williams. Instead, the French use the word vigneron, which loosely translates as “steward of the vineyard.” To Williams, this makes perfect sense. “You grow wine,” he says.



John Williams is founder of Frog's Leap Winery (below) in Napa Valley, Calif.; right: the Swiss vineyards of La Cote, after the harvest.



Today, wine is produced in 62 countries worldwide including some unexpected places like Kazakhstan, Patagonia and Madagascar.

"It's part of the soil."

To say that Williams is a traditionalist when it comes to winemaking is an understatement. It also makes him somewhat of an anomaly in the United States, where a reliance on winery technology is more prevalent than in Old World Europe.

Williams is not alone in his convictions. Despite the rise of Ph.D. programs in oenology that stress science, and innovative companies that reduce winemaking to abstract formulas, there are winemakers around the globe who embrace vineyard health over flavor chemistry. It's all a matter of choices, Williams says. And winemaking in the 21st century is full of them.

Deep Roots in History

Wine is one of the world's oldest beverages. Dating back to biblical times in the

Old Testament, it has been drunk by royalty and commoner alike, celebrated in song and in the Bible, where it is the subject of Jesus' first miracle, when he transforms water into wine at the wedding feast in Cana.

The first mention of wine appeared on tablets in Mesopotamia around 2750 B.C. Archaeological digs of the region also have yielded evidence of presses and vessels. Descriptions of grape harvests and recipes for wine, preserved on clay tablets, were discovered in the tombs of ancient Egypt's elite. Even Noah, the Old Testament reports, tended a vineyard and made wine.

Early travel and trade brought winemaking to Greece, where the Greeks immortalized wine's cultural significance in epic literature such as Homer's "Odyssey." By the Middle Ages, winemaking flourished in many European

countries, primarily in monasteries, where wine was a crucial component of the Catholic Mass. (It's no small coincidence that Champagne was discovered by a 17th-century French Benedictine monk, Dom Perignon.)

The 19th century saw wine grapes planted in both the Northern and Southern hemispheres, across Europe and in places in the New World such as Australia, the United States, South Africa and Argentina. It also ushered in a new era of control in winemaking after Louis Pasteur discovered the basic premise of fermentation: namely that yeast plus sugar yields alcohol and carbon dioxide. Before Pasteur's findings, winemaking was an unpredictable endeavor, with winemakers relying on spontaneous fermentation of ambient yeasts naturally present on grapes and in wineries. Post-Pasteur, the use of cul-

THE WINE LIST

Controlled Appellation: a geographic area dedicated to growing specific varieties of grapes for wine production, for instance Chianti or Napa Valley. Appellations often have rules that govern wine-making, including how wines can be labeled or produced.

Lees: the sediment that settles at the bottom of a fermentation tank

Malolactic: the process in wine-making where tart-tasting malic acid, naturally present in grape must, is converted to softer-tasting lactic acid.

New World: includes winemaking regions in the United States, Argentina, Chile, South Africa, Australia and New Zealand

Non-Vintage: wine that is a blend of this and other years' harvests that is mixed in order to create a "house" style; a regular practice with Champagne and often in mass-produced wines like Manischewitz

Old World: includes winemaking regions in Europe such as Italy, France, Spain, Portugal, Germany and Austria

Racking: the separation of wine from sediment after fermentation and during aging

Tannin: a kind of natural compound that is often created from the fermentation of different parts of the grape; tannins act as a preservative in addition to providing color, enhanced taste and body

Terroir: a combination of soil, climate, weather and topographic conditions that affect the flavor and character of wine

Varietal: the variety of grape, Cabernet Sauvignon or Chardonnay for example

Vintage: the year in which the grapes are picked (harvested) and made into wine



tured yeasts became the norm.

In the 1860s, however, wine production in Europe nearly ended after the native grapevine species, *vinifera*, became infected with *phylloxera vastatrix*. The root louse was brought over from America on cuttings from native *labrusca* grapevines. The solution, it turned out, was related to the cause: Scientists discovered that grafting *vinifera* vines onto the resistant *labrusca* rootstock would make *vinifera* resistant, too.

Today, wine is produced in 62 countries worldwide including some unexpected places like Kazakhstan, Patagonia and Madagascar. The United States, with wineries in all 50 states, ranks fourth in world wine production behind France, Italy and Spain. Argentina ranks fifth.

With the expansion in production, it makes sense that worldwide wine consumption has changed as well, though not necessarily in the most expected ways. Economic downturn, tougher legislation to control drunk driving and changing cultural norms

for younger generations have caused wine sales to decrease in countries such as France and Italy, although these countries still rank highly in per capita wine consumption (following the Vatican City State and Luxembourg), averaging 45 liters (nearly 12 gallons) per person per year.

The U.S., however, has seen a sea change in wine consumption and production since the 1960s and '70s. According to the Wine Institute, in 1965 Americans consumed .98 gallons of wine per resident (3.7 liters), much of it inexpensive pink table wines made by Lancers or Mateus, Chianti in straw-covered bottles or mass-produced renditions of Hearty Burgundy or Chablis that bore no resemblance to their European namesakes. By 2010, buoyed by the growth and the quality of domestic wines, along with an ever-expanding selection of imported wines and reports linking red wine with heart health, Americans had more than doubled their wine consumption to 2.6 gallons (9.8 liters).

In 2009, the U.S. outranked France

for the first time ever in overall wine consumption, with Americans buying 329.7 million cases of wine in 2009. The best-selling wine in America is not homegrown, however. Australia's Yellow Tail brand is currently America's favorite with 8.3 million case sales in 2010.



Yellow Tail wine is currently America's best-selling brand.

Down to Earth

As in any industry, wineries offer a range of products. Mass-produced brand wines like Yellow Tail are made in large quantities; they are fruity, smooth, easy to drink and offer a reliable product at reasonable prices. Most fine wines, on the other hand, are designed to be expressions of *terroir* (loosely translated to "a sense of place"), a concept that addresses the interplay of grape, soil, topography and weather for each particular vineyard site. The idea is that the land from which grapes are grown imparts a quality that is unique to the particular region.

This is one of the reasons for the differences in taste of wines made from the same varietal but in different parts of the world. Fine wines vary from vintage to vintage due to annual weather variation, but each vintage should still reflect the essence of a given varietal—say the crisp grapefruit flavors of Sauvignon Blanc or the peppery tannins of Cabernet Sauvignon. Fine wines are generally more expensive because they are made in smaller quantities and require more vineyard management.

But no matter the site, winemaking itself is a remarkably consistent cycle

of planting, harvest, fermentation and bottling.

The first step in winemaking is choosing the right site.

"A [vineyard] site should have potential," says David Adelsheim, owner and founder of Adelsheim Vineyard in Oregon's Willamette Valley. "If you make a bad decision when planting, you're never going to be able to correct it with what you do in winery. ... If the site is very good, you should be able to make very good wine from it."

In choosing a site, winemakers must consider topography, soil components, drainage, average temperatures and the amount of sunshine and rain expected. These factors lead directly into step two: choosing the grapes that best suit the soil and climate.

In cool climate areas with fewer days of sunshine and lower temperatures, like Burgundy and the Loire Valley in France or the North Island and South Island of New Zealand, delicate Pinot Noir and crisp Sauvignon Blanc flourish. Warmer climates, like California and Argentina, where aggressive ripeness can lead to high sugar and alcohol levels, have found success with heartier grapes like Cabernet Sauvignon and Malbec.

In Europe, most premium vineyard sites are part of a system of controlled appellations (France's appellation d'origine contrôlée, for example) that govern what can be grown on certain sites and how it can be labeled. For example, for French red wine to be labeled "burgundy" it must be made from Pinot Noir grown in the Burgundy region.

Once vines are planted, vineyard maintenance becomes crucial, whether you're in Italy or Oregon. "There's no winemaker in our portfolio who thinks they make wine in their cellar," says Deena Miskiel of Vias Imports, an importer of Italian fine wines. "It's 100 percent all about the vineyard."

Within the world of viticulture, however, winemakers still utilize different approaches. Frog's Leap Winery is farmed organically, one of the most important tools in the tool belt, says John Williams. Organic farming eschews the use of commercial pesticides or fertilizers and instead uses

cover crops such as oats, mustard and purple vetch to balance nutrients and help retain moisture in the soil. These crops must be cared for like any other, and are as much a part of vineyard cultivation as the grapes.

Because of Napa Valley's microclimate, Frog's Leap also practices dry farming, where grapes get water only by rainfall (i.e., without irrigation). Grapes thrive on moderate "stress," says Williams, and dry farming not only encourages healthier grapevine roots to dig deep into the soil for better flavor, it also saves the winery 10 million gallons a year, or 64,000 gallons of water per acre.

Vineyard maintenance at Frog's Leap begins in January with the pruning of the vines. "Pruning is the most important thing to do in the vineyard," says Williams. "It balances the crop," he explains, and prevents small vines from carrying too many and too heavy grape clusters. Early spring sees the turning over of cover crops and planting of any new vines or rootstock. Later, vineyard workers tie branches onto trellises and remove young shoots to control growth in a process called desuckering.

Pollination occurs in May and June and by midsummer, it's time for a green harvest, where vines are thinned of both grape bunches and leaves, so that fewer grapes may receive more nutrients and light exposure. Throughout the season, the vineyard must be weeded and treated for mildew.

Harvest usually takes place in September or October, depending on the season's weather and the grapes' ripening. At Frog's Leap, as at many other small wineries, harvest is done by hand, with workers picking grape clusters over a series of days. It is tedious, back-breaking work, but results in a more careful handling of the grapes, something that David Adelsheim stresses should continue throughout the winemaking process.

Gentle winemaking, says the founder of Adelsheim Vineyard, relies on minimal handling of the grapes. "The more times you have to move the wine, the more aggressively you move it, the more is taken away from the wine," he explains, and the more tannic it can become.

Adelsheim makes Pinot Noir, a wine



The winemaking process: 1) Hand-picked grapes. 2) Grapes being poured into a de-stemmer/crusher. 3) A stainless steel auger crushes grapes and removes stems. 4) Grapes being pressed. 5) Crushed grapes being pumped into fermenter. 6) Solution made of dry yeast and water ready to be pumped into a large stainless steel tank containing fermenting wine. 7) Monitoring the fermentation process. 8) The bottling line.

in which tannin is crucial for color and longevity. At the same time, elegant Pinot Noir requires that tannins be balanced, yielding silkiness rather than bitterness. Adelsheim explains that his vineyard tries to balance the tannins in its wine by “adding a bit of water stress in vineyard rather than by having technology that grinds up the grapes. There’s less chance of making a mistake and getting a wine that’s too tannic.”

The Wonders of the Winery

The winemaking process itself is a combination of simple chemistry, art and

experience. In Oregon’s Willamette Valley, Pinot Noir grapes are put into five-gallon buckets or flat bins (some bins can hold up to a half ton of grapes), before the fruit is transferred into the winery.

The fruit is then sorted either by hand or by a series of conveyors and blowers to remove unripe or diseased fruit—and even bugs—before being transferred to a de-stemmer—a perforated drum that allows the berries to pass through and the stems to remain. Grapes are then moved to the fermenter via a series of conveyors,

pumps and hoses (or sometimes via vertical feed from an overhead de-stemmer).

The largest stainless steel fermenters can sit nearly 10 feet above the winery floor. At this stage, winemakers will add sulfur dioxide, yeast and sulfites, the latter to prevent the wine from oxidizing and to better control the fermentation process.

The wine begins to ferment at around 60 degrees Fahrenheit (15.5 C), and the temperature naturally slowly rises as fermentation continues. Fermentation times vary, but the



A row of four huge cylindrical stainless steel wine containers at a winery in Napa, Calif.; wine tasting in a winery cellar.

process is usually completed in two weeks, after which the berries are pressed. Pressing can take place in basic basket presses, set up so that juice can run through perforations while the solids stay behind; or wine can be pumped into tank presses (shaped like hot dogs) that use an inflatable bladder to press the juice through the solids.

Once pressed, the wine is pumped to stainless steel tanks or to oak barrels to age. Oak softens the wine's tannins, and each variety of oak—French, Slovenian, American—imparts a different effect to the wine. Barrels hold 60 gallons of wine (227 liters), the equivalent of 25 cases or 300 bottles. Oregon Pinot Noirs typically spend at least 11 months in barrel, with higher quality wines spending as much as 20 months or more. During this time, the wine may be “racked” (moved from one barrel to another, through gravity or pump) in order to accelerate aging, separate the wine from its “lees” (deposits of residual yeast and other particulates), and to help blow off unpleasant smelling sulfides. After it is aged, wine may be “fined”—that is, strained to remove impurities, through use of common ingredients like egg whites, gelatin or even milk, at the proportion of an ounce or two per 1,000 gallons.

The final process is bottling. Some wineries own their own bottling line; others schedule appointments with mobile bottling units. First, bottles are “sparged” with inert gas like nitrogen to prevent the excess buildup of oxygen. Then the bottles pass assembly line style

to be filled, corked with a vacuum seal, topped with a foil capsule, and labeled, before being hand-packed into cases and shipped off.

Uncorking a Debate

While general winemaking procedures have remained fairly consistent in the last century, change has still made its way into wineries. One of the most visible innovations: the introduction of screw cap closures. Mostly confined to New World wine producers, screw caps are slowly making their way into Old World wineries and are being embraced by most consumers. There are a few exceptions, however.

“The New York Italian [restaurant] market has to have a cork,” according to Miskiel, national sales manager for Vias Imports. “They can’t put their mind around red wine in a screw cap.”

The success of screw caps is also confined to inexpensive wines in the \$10 to \$20 price range, due in part to the fact that they don’t need to age and

Long confined to mass-produced, inexpensive wine, boxed wines are now moving into the quality wine market, changing the ways wine drinkers purchase in volume and freshness.

partly to consumer attitudes toward price/quality ratio. “The consumer still expects that if a wine is expensive and if wine is meant to age, it is supposed to have a cork,” reports Miskiel.

Alternative packaging also is making headway into the fine wine market. Long confined to mass-produced,

inexpensive wine, boxed wines are now moving into the quality wine market, changing the ways wine drinkers purchase in volume and freshness.

In 2008, Matthew Cain began selling Malbec from Argentina in 1-liter Tetrapaks under the Yellow + Blue label. “We were looking for a way to deliver high-quality, certified organic or certified sustainable wine for under \$12,” says Cain.

Response has been very positive, Cain reports. “There’s a huge shift in the mindset of the younger wine consumer as opposed to what one thinks of as the traditional wine consumer [baby boomers and older]. The younger the person, the more apt they are to embrace this ‘new world order’ of wine. They don’t care if the wine comes from Bordeaux in a glass bottle with a cork [or in a Tetrapak].”

The bottom line for most consumers, of course, is how a wine tastes in the glass and the degree of quality in regard to the price paid for it. But

John Williams wants wine drinkers to remember something else as well. Wine is “more than just a beverage, more than something to drink with dinner,” he says. “Wine is the story of the property and the people who created it,” he explains—a story that is re-told with each bottle. ■

FACTS AND FIGURES

Wine by the Numbers

- In 2009, 62 countries produced wine.
- The Vatican City State and Luxembourg lead the world in wine consumed per capita at 70.22 (18.5 gallons) and 54.29 liters (14.3 gallons) per capita, respectively.
- The United States leads the world in overall wine consumption, with Americans purchasing nearly 330 million cases of wine in 2009.
- France leads the world in wine production with 4.7 million liters (1.2 million gallons)—17.56 percent of all the liters produced worldwide.
- Spain leads the world in acreage dedicated to vineyards with 2,724,700 acres—15.2 percent of acreage worldwide.
- In 2010, Americans' wine consumption was 2.6 gallons (9.8 liters) per capita.
- The United States boasts 7,626 wineries with wineries in all 50 states.
- California is responsible for 90 percent of total U.S. wine production.
- In 2007, the United States had 934,750 acres devoted to wine grapes—yielding \$11.4 billion in winery sales.

THOSE Immortal CHAPLAINS

BY MARY ELLEN MILLER

During one of the greatest American sea disasters of World War II, four clergymen of different faiths went down with their ship to save the lives of others.

ON THE NIGHT OF Feb. 2, 1943, the captain of the USAT *Dorchester* made an announcement to everyone on board. The ship was scheduled to reach its destination—the Army Command Base at Narsarsuaq in southern Greenland—the next morning. But radar had picked up a submarine following the ship. Hans J. Danielsen ordered his men to sleep in their heavy clothes and life jackets—an instruction many ignored because of the heat in their stifling sleeping quarters.

As midnight came and went, the ship's lookouts breathed sighs of relief, thinking the threat had passed. Soon, the ship would be close enough to receive air protection from the U.S. air base in Greenland. But then, at 12:55 a.m., with the *Dorchester* just 100 miles from its destination, a German torpedo ripped through the ship's starboard side near the engine room, tearing a hole from below the waterline to the top deck.

"I just came off guard duty and, boom!" said one survivor. "The lights went out, the steam pipes broke and the men were screaming. There was a very, very strong odor of burned gunpowder." Several hundred of the 902 servicemen, merchant seamen and civilian workers aboard the *Dorchester* were killed instantly—crushed to death in their bunks, drowned and burned in the engine room or washed into the sea.

"The lights went out, the steam pipes broke and the men were screaming. There was a very, very strong odor of burned gunpowder."

Among those who survived the initial explosion were four clergymen who had enlisted in the Chaplains Corps hoping to see action with the troops in Europe. Initially, they had been disappointed to be assigned instead to a mission where servicemen would improve airfields and operate weather stations in the North Atlantic. But now, with the crip-

pled *Dorchester* listing 30 degrees to starboard, and frightened men running frantically to and fro in pain and confusion, the chaplains sprang into action, determined to save as many lives as possible.

The four men were all of different faiths and backgrounds and had just met the previous month at a military staging camp as they waited to ship out. Yet they formed an immediate bond—with each other and the young men on

the *Dorchester* they were there to support. "They were always there. They had tremendous empathy with what most of us were going through—the uncertainty, the fear ..." recalled survivor James McAtamney, in author Dan Kurzman's book, "No Greater Glory." "To see these men in the same uniform but of different faiths getting together and actually



A painting depicts the rescue of USAT *Dorchester* survivors by USCGC *Escanaba* in the icy waters of the North Atlantic Ocean. Just 230 of the 902 men on board lived through the ordeal.

talking and laughing and smiling and joking with each other was unheard of. I don't think I'd be very far from the truth if I said that the pastor of our church wouldn't be caught dead talking to a Protestant minister."

At 41, the Methodist Rev. George Fox was the eldest of the clergymen. He had not led an easy life. Abused by a violent-tempered father, Fox left home at 17 to volunteer for World War I. He became an ambulance driver, bringing wounded soldiers to hospitals. Suffering spinal injuries that would last a lifetime, Fox earned several Purple Hearts, the Silver Star and the Croix de Guerre, France's highest honor. He enrolled in the Moody Bible Institute in Chicago after the war and eventually became a minister at three parishes in Vermont. Throughout his years in the church, he led a life of such

poverty that he was barely able to feed his family.

Rabbi Alexander Goode, 31, who had been beaten up by anti-Semitic bullies as a child, made up for early hardships with his intellect. After graduating from Hebrew Union College in Cincinnati, he moved to York, Pa., where he became rabbi at Temple Beth Israel. There, Goode helped establish a public school curriculum in "human relations" aimed at breaking down racial and ethnic barriers, which later spread throughout the state of Pennsylvania. He also earned his Ph.D. from Johns Hopkins University in Middle Eastern Languages. The author of a book-length manuscript, "Cavalcade of Democracy," Goode foresaw Christians and Jews coming together after the war to achieve a democratic world—and he was so committed to this vision



Clockwise from top left: Methodist Rev. George Fox, Rabbi Alexander Goode, Roman Catholic priest John Washington and Rev. Clark Poling, of the Reformed Church of America.



WWII veteran Fred Whitaker at the entrance to the Immortal Chaplains Memorial Sanctuary aboard the *Queen Mary* in Long Beach, Calif; the stained-glass window at the Pentagon. Below right, a commemorative stamp issued in 1948.

that he left behind his beloved wife and toddler daughter to join the war effort.

The Rev. Clark Poling, of the Reformed Church in America, came from a long line of religious men; he was a seventh-generation minister and the son of a well-known Baptist minister and radio evangelist. Poling was insatiably curious, held blunt opinions and questioned everything, including his relationship with God. During one family vacation, he snuck away to a nearby mountaintop to seek

divine direction; after 36 hours, his frantic father finally found him ... and learned that his son had decided on a life in the ministry. The younger Poling graduated from Yale Divinity School and settled in Schenectady, N.Y., where he was a minister in the Dutch Reformed Church.

John Washington grew up as the eldest of seven children in an Irish Catholic family in Newark, N.J., where he delivered newspapers to help support his family. As a child, he was given the last rites after acquiring a throat infection that resulted in a high fever. Why he had been spared on his deathbed was a question that brought him closer to God. He thrilled his family when he announced his plans to become a Roman Catholic priest. He was ordained in 1935 and eventually made parish priest at St. Stephen's Church in Kearny, N.J. His congregants, who quickly grew to admire their fun-loving, down-to-earth young leader, were sorry to see him leave to join the war effort.

From the moment the *Dorchester* set sail, the four chaplains, often walking around together, made regular visits to the men in their cabins, offering words of reassurance and comfort. To lift spirits, they made plans for an Amateur Night, where the crew could come together to share their talents and have a few laughs. The men had a right to feel afraid because they were on a dangerous journey. German U-boats, while not successful at penetrating the American coastline, lurked in

the waters of the North Atlantic between Newfoundland and Greenland. The Germans' mission was to ward off Allied supply ships in the Atlantic. They had torpedoed more than 100 Allied ships by the fall of 1942.

When the worst storm in 50 years slammed the North Atlantic soon after the *Dorchester* hit the open sea, plans for the much-anticipated Amateur Night had to be abandoned —most men were so sick they couldn't leave their cabins; those who could keep their sea legs kept busy cleaning up broken dishes, fixing damaged pumps to control flooding and chopping the ever forming ice that coated the decks and threatened to sink the ship.

Thankfully, the churning seas calmed by Feb. 2; but though the respite eased the crew's physical discomfort, it also made the *Dorchester* an easier mark for German U-boats. Capt. Danielsen alerted his crew of the imminent threat around dinner-time. Father Washington said a Mass that evening, which many attended, and urged the men to find courage by singing or saying The Lord's Prayer, noted Kurzman. As evening turned into night, the four chaplains gathered in the mess hall to host an impromptu songfest, with Father Washington at the piano belting out popular songs. The party lasted until about 11:30 p.m.

The *Dorchester* was traveling in a convoy, escorted by three Coast Guard cutters, with two other freighters by its side, when the captain of the German U-223 decided to attack. Although the German Lt. Cmdr. Karl-Jürgen Wachter had been ordered to wait for reinforcements, he saw an opportunity to impress his superiors. The U-boat fired three torpedoes, and just one found its mark—but it proved a fatal blow for the *Dorchester*.

Aboard the Army transport ship, panic, cold and inadequate preparation converged to take a deadly toll.

Suddenly, water gushed into the lower compartments. The four 20 mm

guns, with .50-caliber guns fore and aft, didn't work because the ship was listing. Down below, bunks collapsed and crushed the men who had been sleeping in them. Many died trying to find exits in the darkness. Others, who ignored the orders to sleep in

"All I could see was the keel. I saw the chaplains standing arm in arm, the boat took a nosedive and they went right down. They never made a move to get off."

their heavy parkas, gloves and life jackets, were immediately in trouble. When the order was given to abandon ship, the loudspeaker wasn't working.

While there had been enough lifeboats and rafts aboard to accommodate nearly 1,300 passengers, some boats were frozen to the side of the ship. Others were thrown overboard only to drift away. Some capsized because too many people had tried to board them.

Meanwhile, witnesses saw the four chaplains handing out life jackets and lowering men into the boats. When some young crewmen balked at entering the icy waters, the four clergymen calmly reassured them, urging them to grab ropes and lower themselves down. Father Washington reportedly administered absolution to many of the men as they went over the side of the ship. When young Lt. John Mahoney started to run back to his cabin for gloves, Rabbi Goode pulled off his pair and insisted that Mahoney put them on. "I owe my life to those gloves," Mahoney would later tell author Kurzman. Mahoney endured eight hours clinging to a lifeboat in frozen waters before he was rescued—one of just two men in the boat of 40 who survived.

Before long, the supply of life preservers ran out. One by one, each chaplain took off his own and gave it to a man in need, before encouraging him off the sinking ship.

One survivor will never forget the last time he saw the four chaplains.

"All I could see was the keel. I saw the chaplains standing arm in arm, the boat took a nosedive and they went right down. They never made a move to get off.

"I think that single act has changed my life," he continued. "I try

to do more for people. I don't worry about me so much."

Only 230 men survived the sinking of the USAT *Dorchester*. She went down in just 20 minutes. Most of those who perished died of hypothermia in the frigid water of the North Atlantic. When rescue ships arrived later that day, hundreds of bodies were seen on the water, kept afloat by their life jackets.

The year after the sinking, each of the chaplains was awarded a Purple Heart and the Distinguished Service Cross. In 1948, even though protocol states that no postage stamp can be issued until 10 years after a person's death (except for a U.S. president), a three-cent stamp of "These Immortal Chaplains" was issued.

In 1961, a posthumous Special Medal for Heroism was established by

Congress to honor the four chaplains. It was awarded in place of the Medal of Honor, which has strict requirements of heroism performed under fire. In addition, other honors have been bestowed upon the clergymen, including stained-glass windows at the Pentagon and the Washington National Cathedral, just to name a few.


In 1997, David Fox, the nephew of George Fox who has interviewed more than 30 survivors, relatives and friends of the chaplains, co-founded the Immortal Chaplains Foundation to spread the story of the four chaplains and their ecumenical message. The foundation also created the Immortal Chaplains Prize for Humanity to honor those who risked everything to save others of another faith or ethnicity. Archbishop Desmond Tutu was one of the recipients.

"Their story has an amazing power to it," said David Fox. "This is how we keep it alive."

But perhaps one of the foundation's most remarkable moves was to invite the German survivors of the U-223 to attend an anniversary of the World War II event, which was held in 2000.

"I felt that just as the chaplains reached out to others, I had to reach out to them," said David Fox. "There are two sides to the story. The chaplains would've forgiven them." ■



An aerial photograph showing a lush green golf course with several sand traps and a winding path. In the foreground, a rocky coastline meets a sandy beach and turquoise water with white waves. The scene is captured from a high angle, looking down on the landscape.

Bermuda's gorgeous vistas make for great golfing.

Bermuda

B O U N D

BY GREG RIENZI

WITH ITS PINK BEACHES, RICH CULTURAL HISTORY AND TEMPERATE CLIMATE, THIS BRITISH OVERSEAS TERRITORY CAN'T HELP BUT HOOK TOURISTS IN.



Each weekday morning for the past several decades, Johnny Barnes has stood at the Crow Lane roundabout one mile east of downtown Hamilton, Bermuda, waving and blowing kisses at drivers and pedestrians. Affectionately known as “Mr. Feel Good,” or “The Happy Man,” he’s arguably one of Bermuda’s most famous citizens.

A local sculptor captured Barnes’

smiling spirit in bronze in 1998 and today the life-size statue overlooks the entrance of East Broadway in the island’s capital city.

Barnes represents an extreme example of Bermuda’s most abundant natural resource—hospitality. “We have, or so they say, the most courteous people on Earth,” says Dr. Edward Harris, executive director of the National Museum of Bermuda. The locals, Harris says, take their well wishes and greetings very seriously, and so should visitors to the friendly little island that has been drawing tourists since Queen Victoria’s reign.

Thousands each year come for the turquoise waters, smooth pink sand beaches, world-class golf, deep-sea fishing, water sports, museums, horseback riding—and handsome limestone buildings.

Commonly mislabeled part of the Caribbean, Bermuda sits 650 miles east of Cape Hatteras, N.C., and more than 900 miles north of the Bahamas. Bermuda, which from the air resembles a fishhook, stretches 21.6

miles and consists of nine parishes and 181 islands and islets surrounded by a 200-square-mile coral reef plateau.

Ask the locals to describe their home and they’ll use terms like clean, safe and civilized. The country’s strict, long-standing environmental laws and limited car use—you can’t rent a car on the island—have preserved Bermuda’s natural beauty. The island also has a thriving cultural history.

Bermuda was discovered in 1505 by Spanish navigator Juan de Bermúdez, who claimed the area for the Spanish Empire. Mostly vacant the next 100 years, Bermuda was first settled in 1609 by shipwrecked English colonists headed for Jamestown, Va. Three years later, the Virginia Company organized 60 settlers to establish a permanent colony on the islands.

The Virginia Company, and later the Bermuda Company, ran the islands for decades with a firm hand. The settlers would eventually sue to have the company’s charter rescinded and in 1684 Bermuda became a British crown colony with its own parliamentary rule. (Bermuda, in fact, is the oldest British Colony and has the second oldest parliamentary democracy, after England, in the world.)

Bermuda’s current 64,500 inhabitants are primarily descendants of slaves from the West Indies and West Africa, English settlers, Irish adventurers, exiled North American Indian prisoners and Portuguese immigrants.

Tourism to the island developed in the late 19th century. Mark Twain and Woodrow Wilson frequented Bermuda, known as a place of rest and cultured leisure. The island today draws the likes of New York Mayor Michael Bloomberg, Beyonce, actor Michael Douglas,



Tobacco Bay, sheltered by limestone rock, offers a showcase of tropical fish for snorkelers; the historic town of St. George is a favorite destination for shoppers.

In Short

Stroll through the business district of downtown Hamilton, Bermuda, on a weekday and you'll see plenty of male office workers in blazer, tie, dress shirt—and neatly pressed shorts falling just above the knee. The trademark “Bermuda shorts” evolved into common work attire after World War II, when a clothing shortage beset the island. Several prominent Bermuda bank owners looked to the shorts-clad British military for inspiration. While the first Bermuda shorts were made of itchy gray flannel, subsequent versions have become more fashionable—and more comfortable.

Italian Prime Minister Silvio Berlusconi.

While relatively small, Bermuda sports plenty of places to visit and things to do. Must-see stops at the western end of the island (the “barb” of the fishhook) include the Royal Naval Dockyard, the former naval base on Ireland Island that now is home to the National Museum of Bermuda and Dolphin Quest (offering personal encounters with the beautiful creatures), as well as the Dockyard Glassworks and Bermuda Rum Cake Factory; these occupy opposite ends of a cavernous room that once served as a repair yard for high-masted ships. The Dockyard is also a popular hub for restaurants and pubs, craft stores and galleries and the Clocktower Mall shopping center.

These attractions also make the Dockyard area a popular destination for the many cruise ships that tie up here during peak cruising season

(from April to mid-November). With some ships disembarking as many as 6,000 passengers and crew at a time, the streets can quickly get jammed and the restaurants and shops overwhelmed. Weekdays tend to be worst, but the weekends—when the big ships are in transit to and from the East Coast of the U.S.—bring some respite from the crowds.

You'll gain a bit more breathing room as you head to the middle of the island and the city of Hamilton, which has been the capital of Bermuda since 1815. The beautiful port town attracts tourists for its shopping, bars, restaurants, the new Bermuda Underwater Exploration Institute and charming pastel-colored Victorian buildings along Front Street. It also serves as Bermuda's main transportation hub, as both the central bus and ferry terminals are located here.

Moving eastward from Hamilton are the Bermuda Botanical Gardens;



St. George's town crier offers a hearty welcome to guests; visitors to the town won't want to miss St. Peter's Church, the oldest continuously operating Protestant church in the Western Hemisphere.

the Bermuda Aquarium Museum and Zoo; the Masterworks Museum of Bermuda Art, an art gallery that contains Bermuda-inspired works by such greats as Georgia O'Keeffe and Winslow Homer; and the popular Crystal Caves and its dramatically illuminated crystal stalactites and stalagmites formed 30 million years ago. The cave's clear, azure blue lake offers breathtaking views of formations on the water's bottom some 55 feet below.

Venture to the east end of the island

(the eye of the hook) to walk the streets of St. George's, the oldest, and most historic part of Bermuda. With most of its buildings constructed in the 17th and 19th centuries, the town has narrow streets lined with period style lights. King's Square, at the center, features replica stocks and a ducking stool—which once served to dump gossiping women into the harbor. St. George's is also home to St. Peter's, the oldest continuously operating Protestant church in the western hemisphere.

Of course, there's nothing wrong with just spending the day on the island's famed pink beaches, which owe their hue to a combination of crushed coral, calcium carbonate and the shells of tiny single-celled animals called Foraminifera.

Bermuda has a year-round mild, subtropical climate with temperatures ranging from 68 to 84 degrees F (20 to 28.8 C). The high season lasts from April to October, but several water-related activities don't kick into gear until late May. Many who visit from November to

Snorkeling the Day Away

Subtropical Bermuda lies well north of the Caribbean—yet still offers a vast array of coral reefs and other undersea life. The views beneath the gin-clear water are not to be missed.

The best places to snorkel reside off of the island's public beaches. Many beachfront hotels will lend/rent fins, masks and snorkels, and advise you on the best sites in the area. The waters are home to a multitude of sea life including gray snapper, blue striped grunt, hogfish, porcupine puffer, moray eels, angelfish and squirrelfish.

Snorkel aficionados favor Church Bay, located on the south shore, west of the Fairmont Southampton Princess Golf Club and Gibbs

Hill Lighthouse. The well-protected cove was carved out of coral cliffs and features snug little nooks, making it an ideal haven for fish to hide from larger predators.

Another favorite snorkel destination is John Smith's Bay, located on the south shore and to the east of the Spittal Pond Nature Reserve and Watch Hill Park (and close to the Devil's Hole Aquarium).

If you're staying at a hotel near the airport, head to Tobacco Bay, north of St. George's Golf Club. The bay is sheltered by unusual Daliesque limestone rock formations and provides a perfect spot to view colorful tropical fish like parrotfish and sergeant majors.

An enjoyable, but small,

snorkeling spot is West Whale Bay, which lies along the south shore at the west end of Southampton, west of the Port Royal Golf Course. In addition to good snorkeling conditions, the beach also serves as a great location to see migrating humpback whales (March and April).

Snorkeling can be done year-round in Bermuda but is best from May to October. During November to March, the water temperature can dip close to 60 degrees F (15.5 degrees C) and warrants a wet suit for extended time in the water.

Some of the best sites are accessible only by boat, but there are plenty of tour companies to oblige.

The adventurous, seaworthy and island savvy can rent a

small boat, even one with a glass bottom. The rental company can advise where to go and not to go. But keep in mind that navigating in sometimes choppy Atlantic waters full of reefs is no row in the bathtub. There's a reason why the waters surrounding Bermuda are full of wrecks. —GR



Snorkel Park at the western end of Bermuda.

The Bermuda Triangle: Fact or Fiction

No urban legend fascinates quite like the Bermuda Triangle. The area also known as the “Devil’s Triangle,” has populated TV and Hollywood plots for decades with tales of disappearing ships, planes and whatever unfortunate vessel falls into its mysterious grip.

Yet when subject to scrutiny, little passes the smell test—even the triangle’s very existence.

By most accounts, the Bermuda Triangle is located off the southeastern coast of the United States, an area bounded by Bermuda, Miami and San Juan, Puerto Rico. It covers roughly 500,000 square miles. The U.S. Board of Geographic Names does not recognize the Bermuda Triangle as an official name, although maps of the general area are widely available.

Unusual features have been attributed to this part of the world since the days

and the 14 crew members were never seen again.

Lt. Charles Taylor led the assignment to fly bombing practice runs over Hen and Chickens Shoals, south of the Grand Bahamas. Taylor got lost shortly after one run and had to rely on compasses, which apparently malfunctioned. The planes flew blind for hours and eventually, when fuel ran out, ditched at sea. The 10,000-pound planes would have sunk fast, and the crews had little chance to survive in the cold, choppy water.

A massive land and sea search was mounted and, adding to the tragedy, one of the rescue planes disappeared along with its 13-man crew. A ship in the area reported seeing a huge fireball and oil slick at the exact time and place where the plane would have been.

The disappearance of Flight 19 was blamed on pilot

The disappearance of Flight 19 was blamed on pilot error but the Navy later amended its report to “causes or reasons unknown.”

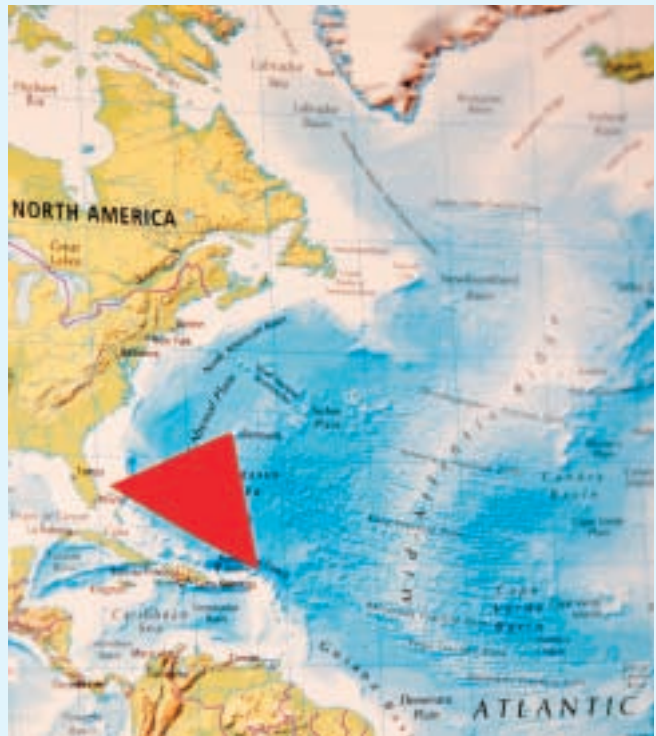
of Christopher Columbus, who noted bizarre compass bearings in the area in his logs. In March 1918, the USS *Cyclops* disappeared in the triangle, likely sunk in an unexpected storm.

The modern-day legend dates to Dec. 5, 1945, when five U.S. Navy Avenger Torpedo Bomber planes took off from a base in Florida on a routine training mission, known as Flight 19. The planes

error but the Navy later amended its report to “causes or reasons unknown.”

Another well-known disappearance is the civilian tanker SS *Marine Sulphur Queen* that sank in February 1963 and was never found—although a life preserver and other floating artifacts were recovered.

Vincent Gaddis coined the term Bermuda Triangle in an August 1964 cover story



The “Devil’s Triangle” is bounded by Bermuda, Miami and San Juan, Puerto Rico.

for *Argosy* magazine about the disappearance of Flight 19. The article spawned legions of mythmakers and triangle theorists who wanted to explain, and exploit, the area’s reportedly high incidence of unexplained disappearances of ships and aircraft.

The theories range from the straightforward to the supernatural. In no particular order, the disappearances were caused by sea monsters, giant squid, magnetic interference, pirates, a comet that splashed down in the water more than 1,000 years ago, a time vortex, extraterrestrials and even ocean flatulence—the sudden spewing of great quantities of trapped methane.

But according to scientists, the real culprits are

likely Mother Nature, reefs and human error. The area, which features a swift-moving Gulf Stream, is prone to hurricanes and also home to some of the deepest marine trenches in the Atlantic.

Dr. Edward Harris, executive director of the National Museum of Bermuda, said that while Bermuda certainly sports a “heritage of hundreds of shipwrecks,” nobody has ever provided real proof that its waters and the rest of the “triangle” are more turbulent than any other area of the Atlantic.

“Cape Hatteras has probably claimed more ships,” Harris says. “It’s a nice story, the Bermuda Triangle. I wish I had written it. I would have made a fortune off the film rights.” —GR



Enjoying the view at Coconuts at The Reefs resort.

March go for the golf and spas.

The island is cricket mad and the local season runs from April to September, highlighted by Cup Match, a two-day national holiday in July that literally pits east islanders versus west and grinds the place to a halt.

Bermuda's currency is the Bermuda dollar, with 100 cents to the dollar. It is pegged to the U.S. dollar on a 1-to-1 basis, and both are equally acceptable at all establishments across the island.

Accommodations range from luxury resorts (some charging upward of \$700 per night) to more modest hotels (averaging \$200 per night) to intimate guest cottages and family-run inns. All incorporate the sophistication and hospitality unique to the Bermuda experience.

Bermuda has more than 150 restaurants, from the simple to the elegant. Favorite hot spots are the beachfront Coconuts at The Reefs resort, the Dining Room at Gibbs Hill Lighthouse and the Black Horse Tavern, a local favorite for Bermudian cuisine. A Bermuda visit isn't complete without a stop at the Swizzle Inn for the island's famous Rum Swizzle. You might also want to sample a Dark n Stormy, a highball-style cocktail that consists of Bermuda's own Gosling's dark rum and ginger beer over ice. Wherever you go, try the fish chowder and rum cakes.

Because virtually everything but fish must be flown in to the island, restaurant prices are higher than in the U.S.—closer to what you'd encounter in Europe (with the cost of dining at a mid-range restaurant ranging from \$20 to \$30 per person). Small, local restaurants offer a great chance to sample authentic local fare, and they tend to be cheaper (about \$15 per person). During peak season, restaurants across the island get very busy, so it's best to make reservations well in advance.

Without access to rental cars, visitors get around on motor scooters, bicycles, buses, ferries and horse-drawn carriages. There are taxis, but they can get pricey.

Harris, who was born and raised on Bermuda, says happily that his home has changed little over the years. "It's still a wonderful place to live, with lovely old houses, plenty of charm and a high quality of life," he says.

Johnny Barnes would agree—no doubt while wearing a wide, welcoming smile beneath his straw hat. ■

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MILESTONES IN HISTORY



witch hunt

TERROR REIGNED AS ACCUSATIONS FLEW DURING
THE SALEM WITCH TRIALS OF 1692

BY EUGENE FINERMAN



AMERICANS USUALLY speak of the Pilgrim fathers as independent-minded, hardworking and pious people who helped settle the land. We like to believe that we are imbued with their virtues. But the Pilgrims left another legacy as well, and it's a shameful one—for the Puritan heritage also includes the Salem Witch Trials.

In 1692, the province of Massachusetts Bay, as the state was then known, had a population of 56,000 English colonists. Strict, puritanical Protestants, they had come to the New World to build a society that reflected their values. The Puritans believed in hard work, and regarded a good crop or a profitable year as a mark of God's approval. They also encouraged literacy, particularly for reading the Bible. In 1636, just eight years after the first Puritans had arrived there, the colony established a college that was named for its benefactor John Harvard.

But their creed also imbued them with a morbid, fearful view of the world. It was the Devil's dominion, and Satan was after them. They did not accept the idea of luck or accident: the poor crop, the dead calf or the fall from a ladder were likely the work of the Fiend. And just as God had his beloved congregation, so too did Satan: witches. These minions of hell, having sold their souls to know the black

arts, used magic to afflict the godly.

These were not merely the superstitious babblings of the ignorant, but the firm convictions of the educated as well. The Rev. Cotton Mather, a Harvard graduate and one of New England's most promising young leaders, had made a study of demonic possession of the mentally ill. His "Memorable Providences, Relating to Witchcrafts and Possessions" was regarded as a medical textbook.

Indeed, the book would soon be used as evidence in Salem, Mass. In early 1692, 11-year-old Elizabeth Parris, the daughter of the town's minister, and her 11-year-old cousin Abigail Williams began running about in a violent frenzy and speaking



Some 200 years after the Salem Witch Trials, antique collectibles from the era remain popular.

witch hunt: an intensive effort to discover and expose disloyalty, subversion or the like, usually based on slight, doubtful or irrelevant evidence.

—WEBSTER'S UNABRIDGED DICTIONARY



gibberish. Modern-day experts have offered several theories as to cause of such behavior: food poisoning, attention-deficit disorder or children being children. Seventeenth-century medicine had a more occult diagnosis. The local magistrates were alerted and, with the coercing help of the Rev. Parris, the two children were coaxed into naming three witches who had cursed them.

Tituba was the slave of the Parris family, Sarah Good was a beggar and Sarah Osborne had been suspected of immorality and quarreled with the reverend. The three women were arrested. When accused of witchcraft, Good and Osborne maintained their innocence but Tituba confessed. The slave from Barbados was already incriminated by her exotic background; the folk tales of the Caribbean she had told the children now were cited as evidence against her. Hoping to save herself, Tituba testified, "The Devil came to me and bid me serve him," accusing Good and Osborne of forcing her to sign the Devil's book.

Presumably the Parris family now had been exorcised, but then other young women proclaimed their bedevilment. Ann Putnam was the daughter of one of Salem's most prominent and ambitious families,

and the teenager and her immediate circle of friends all claimed to be tortured by witches. Historians have noted that Ann and her clique accused people who had feuds with the Putnams. The Rev. George Burroughs was dragged from Maine to face the charge of witchcraft; by coincidence, he also had an unpaid debt to Ann's family. Land disputes with the Putnams also were settled by a charge of witchcraft.

Other young women in neighboring towns came forth with accusations of witchcraft. In Ipswich, servant Mary Warren accused her bad-tempered employers of witchcraft; they were arrested. More and more people were accused. Within two months, 400 people had been investigated, and 200 were jailed. Most claimed their innocence. Some 40 confessed, however, expecting clemency for their cooperation. Of course, that cooperation required them to incriminate others. When Abigail Hobbs was arrested, she soon accused her mother, Deliverance. After her arrest, Deliverance accused her husband, William. Breaking with the family tradition, William maintained his innocence and accused no one else.

The jails were overcrowded and

getting worse, but there were no trials. The local magistrates did not have the authority. A special court was required to try witches, one established by the royal governor, and Massachusetts was awaiting his arrival from London. On May 14, 1692, Sir William Phips landed in Boston and in the middle of a crisis. He was born in New England and certainly was used to the Puritan personality, but he did not expect to judge 200 cases of witchcraft. Phips was not even a lawyer, but a ship-builder who had grown rich in the salvage business. But acting quickly, Phips established the special court on May 27. William Stoughton, an ordained minister, was named the chief justice. The trials began in early June. Only Puritan males were eligible to be jurors. Since Salem had a population of 600, the accused and the jurors would have known each other.

In trying a witch, there were a number of precedents and tests. A spinster was always suspicious. Any physical blemish could be considered a mark of Satan. A mole or a wart was incriminating; a birthmark was practically a death warrant. Any mishap that occurred to a neighbor might be weighed against the accused. However, the accused could



A drawing depicts the execution of Ann Hibbins; the title page of the 1693 work “Wonders of the Invisible World,” by Cotton Mather; a lithograph by artist Joseph E. Baker, titled “The witch no. 1”; portrait of William Stoughton, chief justice of the witch trials and acting governor of Massachusetts, ca. 1700; stone cenotaph for Sarah Good at the Salem Witch Trials Memorial.

prove their innocence by reciting—without a mistake—the Lord’s Prayer. Justice Stoughton would also consider an additional form of evidence: dreams and visions. When Elizabeth Parris claimed that she saw Sarah Good flying on a broom, this court accepted that as proof.

The trials themselves became a stage for hysterics. English justice required that the accuser face the accused, and the nine afflicted women sat in the court. In the presence of the accused, the “bewitched” would react with fits, shrieks and accounts of spectral attacks. In court, Ann Putnam would claim that she was being strangled by the evil powers of the accused, the 71-year-old Rebecca Nurse. Of course, the attack was invisible, but the court accepted it as evidence. However, the jury initially did not, and acquitted Nurse. Justice Stoughton did not accept that verdict, and told the jurors to find her guilty. The intimidated panel complied. English law, the Puritan disposition and the Old Testament concurred: “Thou shalt not suffer a witch to live.” Rebecca Nurse, certainly guilty of a land dispute with the Putnams, was hanged.

She would be one of 19 to die on the gallows. An 80-year-old man was

executed by being crushed to death by stones. As many as 13 died in prison. A 4-year-old child, imprisoned for witchcraft, went mad. But the real crime was the trials themselves: the absurd “evidence,” the courtroom hysterics and Justice Stoughton’s obvious bias. This court tried 26 cases, and all the accused were found guilty.

The trials themselves became a stage for hysterics. In the presence of the accused, the “bewitched” would react with fits, shrieks and accounts of spectral attacks.

The public, at least those safe from Stoughton’s immediate jurisdiction, protested the scandal. Increase Mather, president of Harvard and father of Cotton Mather, wrote in a public letter, “It were better that ten suspected witches should escape than one innocent person be condemned.” Governor Phips agreed. Finally, in October 1692, he dissolved the special court, halted the executions and forbid further arrests. Those imprisoned without formal charge were released. The remaining 56 cases of witchcraft were transferred to the Superior Court. In those proceedings, without the spectral evidence and courtroom hysterics, 53 of the accused were found innocent. Of

the three people found guilty, even they were released from prison by May 1693.

However, there was no punishment for the genuinely guilty ... other than what their conscience dictated. On Jan. 14, 1697, the legislature of Massachusetts ordered a day of fasting and repentance for the Salem hysteria. The proclamation was

written by Samuel Sewall, who had been a judge at the trial. In 1706, Ann Putnam publicly repented. None of the other “afflicted” did. As for Justice Stoughton, he actually rose in government and became chief justice of the colony. The town of Stoughton, Mass., is named for him, as is a dormitory at Harvard. He remained unrepentant.

But we remember the Salem Witch Trials—a haunting metaphor of bigotry, hypocrisy and hysteria. It remains a warning, but one we don’t always heed. There have been times in modern history when, through politics and fears, we have again succumbed to blind persecution.

And that frenzy is still called a witch hunt. ■

A Crimp In Plans

It's vital to account for the differences between hydraulic and industrial hose



While a hydraulic hose salesman was visiting a longtime customer and friend, the GM of the utility company, the duo found their conversation interrupted by a ringing telephone. Upon hanging up, the GM had a look of concern on his face. After his friend inquired as to what was wrong, the GM told him about the recurring problems they were experiencing with air hose assemblies. He was afraid that someone was going to get seriously hurt. Vowing to help his friend solve his problem, and excited about the industrial hose

sales opportunity, the salesman collected the specifications for the air hoses and left.

Returning to his office, the salesman began to browse through product catalogs. He discovered a universal air fitting that was “crimpable.” Based on his background in the hydraulic hose business, the salesman knew he had found the answer. He immediately called the GM of the utility company and made his proposal.

Agreeing that it sounded like something that might work, the GM decided to order 10 crimped air hose assemblies for a field test. “We’ll put them in severe conditions for a couple of months, and if they perform as you promise, then we’ll replace all of our existing hoses with crimped assemblies.” That was exactly what the salesman wanted to hear.

The 10 test assemblies performed flawlessly. The GM called the salesman and told him the assemblies had passed, and he would be faxing over a purchase order, listing quantities and delivery dates. When the fax came through, the salesman could hardly believe his eyes. The quantities were huge! Never did the hydraulic hose salesman think that simple air hose assemblies could be so lucrative. When he called his friend the GM to confirm the PO, the GM just chuckled. He reminded the salesman that this order was just the beginning. He wanted to start having all of his hose crimped—hydraulic and industrial.

When it came time to make the new assemblies at the shop, the salesman stopped in to explain to the shop super-

visor how important the order was. The supervisor reassured the salesman that it was nothing to worry about. Just like with hydraulic hose, the information he needed was in the hose and fittings catalogs. “I’ll just set the crimper, and the assemblies will practically make themselves,” asserted the supervisor.

Almost immediately after the new hoses went into service, problems began to occur. Fittings started to move. Some pulled out completely just as they were being moved around. Unfortunately, one broke free as a valve was being turned on, causing some severe injuries to workers standing by. Three workers were hospitalized, with injuries ranging from a broken arm to a severe concussion.

Much has been made recently about the “hydraulicization” of the industrial hose industry. This transition to crimping industrial hoses can be a great benefit, creating faster, safer and higher performing assemblies. But hydraulic hose and industrial hose are different, and those differences are important. Most importantly, the hose outside diameter of industrial hose can vary greatly from catalog specifications. Time must be taken to measure each end of the hose before selecting fittings, ferrules, or sleeves, or setting crimp dimensions.

Let’s “keep it safe”—by understanding all of the variables before making a hose assembly. 🟡

THE DIXON DRILLER

"Published once a moon since 1932"

NOVEMBER 2011

To read The Dixon Driller on a monthly basis, visit our website: www.dixonvalve.com

Dates in History

1512

On Nov. 1, the ceiling of the Sistine Chapel in Rome, one of Italian artist Michelangelo's finest works, is exhibited to the public for the first time.

1941

On Nov. 26, President Franklin D. Roosevelt signs a bill officially establishing the fourth Thursday in November as Thanksgiving Day. The tradition of celebrating the holiday on Thursday dates back to the early history of the Plymouth and Massachusetts Bay colonies.

2001

On Nov. 16, the British author J.K. Rowling's star creation—bespectacled boy wizard Harry Potter—makes his big-screen debut in *Harry Potter and the Sorcerer's Stone*, which opens in movie theaters across the United States.

www.history.com

TRIVIA Did you know that...

"Bookkeeper" is the only word in English language with three consecutive double letters.

Polar bears have more problems with overheating than they do with cold. Even in very cold weather, they quickly overheat when they try to run.

The creosote bush, which grows in the Mojave, Sonoran and Chihuahuan deserts, has been shown by radio-carbon dating to have lived some 10,000 years.

The only two animals that can see behind themselves without turning their heads are the rabbit and the parrot.

The world's population has increased 3.1 billion in the last 40 years.

The word "listen" contains the same letters as the word "silent."

The most powerful laser in the world, the Nova laser at Lawrence Livermore National Laboratory, in California, generates a pulse of energy equal to 100,000,000,000,000 watts of power for .000000001 nanosecond to a target the size of a grain of sand.

A "geep" is the resulting offspring of a sheep and a goat.

The United Nations University is located in Tokyo.

Venice, Italy is built on 118 sea islets joined by 400 bridges. It is gradually sinking into the water.

The Hubble Space Telescope weighs 12 tons (10,896 kilograms), is 43 feet (13.1 meters) long and cost \$2.1 billion to originally build.

Mass production of toothbrushes began in America around 1885. The first American to patent a toothbrush was H. N. Wadsworth (patent number 18,653) on Nov. 7, 1857.

<http://www.wonderfulinfo.com>

ON THE LIGHTER SIDE

Faced with hard times, a company offered a bonus of \$1,000 to any employee who could come up with a way of saving money. The bonus went to a young woman in accounting who suggested limiting future bonuses to \$10.

A golfer walked into the Pro Shop at the local course and asked the golf pro if they sell ball markers.

The golf pro said, "Yes, they are just \$1.00 each."

The guy gave the golf pro a dollar and said he would take one.

The golf pro opened the register, put the dollar in the tray and with a big smile handed the guy a quarter.

A couple was vacationing in a national park. The wife expressed her concern about camping because of bears and said she would feel more comfortable in a motel. The husband said that he'd like to camp; to calm her concerns, they'd talk to the park ranger to see what the likelihood of a bear encounter would be.

The ranger told them, "Well, we haven't seen any grizzlies in this area

so far this year, or black bears, for that matter."

The wife shrieked, "There's TWO types of bears out here? How can you tell the difference? Which one is more dangerous?"

The ranger replied, "Well, that's easy, see, if the bear CHASES you up a tree and it comes up after you, it's a black bear. If it SHAKES the tree until you fall out, it's a grizzly."

The motel room was quite nice.

<http://www.justcleanjokes.com>

PRODUCT SPOTLIGHT

Safety Break-away Couplings

Dixon Safety Break-away Couplings are designed to minimize spillage and damage associated with drive away and pull away incidents.

The Industrial Breaking Bolt couplings are designed so that the coupling automatically senses an excessive pull, closes the valves and disconnects. These couplings are offered in stainless steel or aluminum and come standard with a Viton® seal.

Dixon's Marine Breaking Bolt couplings are designed to be installed within a string of hoses where the coupling has a length of hose attached to both sides. The typical applications for these couplings are ship-to-off-shore platform and ship-to-ship product transfer operations. These

couplings are made from 316T1 stainless steel and have Viton® O-rings. The industrial and marine couplings are available in female NPT, male NPT, and flange connections.

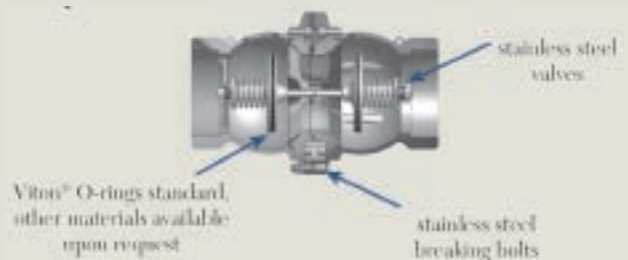
All break-away couplings are available in a non-closure version. Please call the factory at 800.355.1991 for further information.

Product Safety

- Provides passive security against situations where a hose or loading arm could be subjected to inadvertent excessive pull
- Operates independently of shut off safety systems and does not require an external power source
- Acts as a safe parting point within the transfer system, protecting

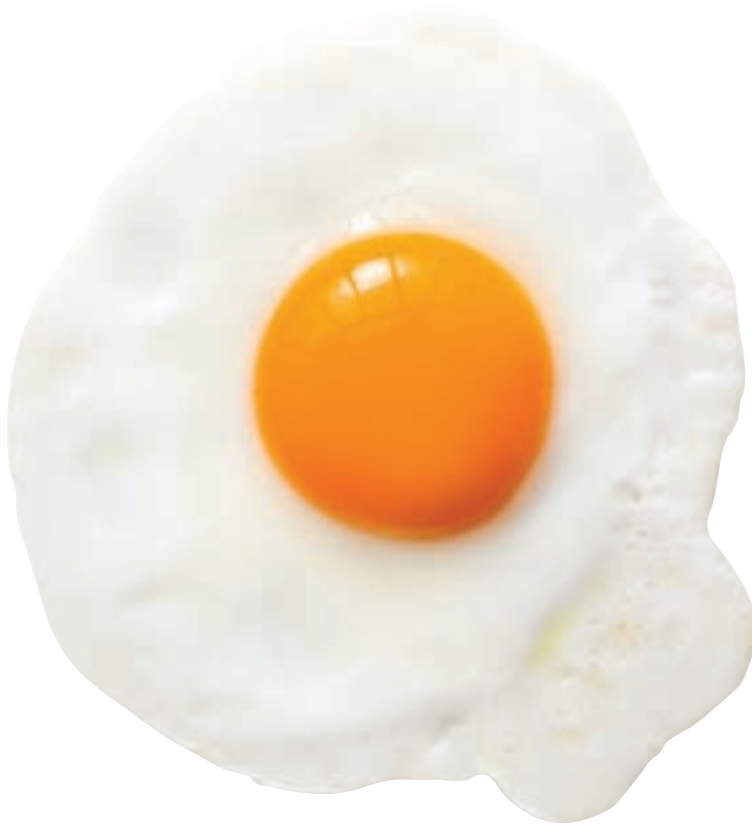
equipment and personnel

- The coupling automatically senses an excessive pull, closes the valves and disconnects.
- When couplings separate it allows poppets to close. The two poppets close rapidly, minimizing exposure to personnel and the environment.



Nutrition Myth-Busters

Think you know the real skinny on everything from the 'evils' of eggs to the benefits of sports drinks? Read on...



BY MARIA BLACKBURN

Some guy at the gym says you need to eat more protein because you work out regularly. Your wife reports that she's banned all carbohydrates because they lead to unwanted weight gain. Your mother tells you not to microwave vegetables because it zaps all of their vitamins.

Everybody, it seems, has something to say about nutrition. But how do you separate fact from fiction? Easy. We asked three registered

dietitians, all spokeswomen for the American Dietetic Association, to weigh in on six popular nutrition myths. Their answers may surprise you.

Myth: Eggs are bad for you.

Truth: Just because eggs are high in cholesterol, and high cholesterol can lead to heart problems doesn't mean you need to avoid eggs, says Keri M. Gans, a registered dietitian in New York City and author of "The Small Change Diet" (Gallery Press, 2011). "Research has shown that it's not cholesterol that increases a person's cholesterol levels, it's saturated fat," Gans says. "There's nothing wrong with eggs as part of a well-balanced diet. What you don't want to do is have those eggs fried with bacon and home fries because that increases your saturated fat for the meal." One egg has 70 calories, is high in protein, and contains vitamin D, folate and other nutrients. Plus, eggs are inexpensive. Gans suggests her patients eat up to one whole egg a day mixed with as many egg whites as they like, and she recommends eating an egg at breakfast because the added protein in the meal can help them feel full until lunch.

Myth: Carbohydrates make you fat.

Truth: Carbs don't make you fat, but excess calories do, says Heather Mangieri, a registered dietitian and a board-certified specialist in sports

dietetics. “Carbs are easier to overeat than fat and protein,” says Mangieri, whose practice, Nutrition CheckUp, is in Pittsburgh. “And simple carbs like candy, soda and granola bars tend to be digested quickly so they can leave you feeling unsatisfied.” But carbohydrates are an important source of fuel for the body and shouldn’t be avoided. Instead she suggests that diners choose whole grain carbs, and be aware of portion sizes and of how carbs fit into a balanced diet.

Myth: Fasting is necessary to cleanse toxins from your body.

Truth: “What toxins?” says Andrea Giancoli, a registered dietitian in Los Angeles. “You don’t need to fast to cleanse toxins because your body already has a sophisticated system that gets rid of toxins before they can build up.” Eating a balanced diet with whole grains, fruits, vegetables and lean protein helps keep this system running well. “Fasting for more than a day is unnecessary and can be potentially detrimental to your health.

The body is resilient, but you need to treat it well. A seven-day fast is not treating it well.”

Myth: Microwaving removes nutrients in vegetables.

Truth: Microwaving actually helps preserve nutrients in vegetables, Giancoli says. “Vegetables tend to be high in vitamin C and vitamin B, both water-soluble vitamins that break down really easily. When you boil a vegetable like broccoli, many nutrients go into the water. When you steam vegetables, you lose fewer nutrients. And when you steam vegetables in the microwave, you are cooking them so quickly that you actually retain more nutrients.”

Myth: If you’re working out, your body needs sports drinks and extra protein.

Truth: “Most Americans consume enough protein in their regular diet and don’t have to seek out additional sources if they are exercising regularly,” Mangieri says. What about sports

drinks like Gatorade, which are designed to replenish the body with glucose and electrolytes lost during exercise? “Under most circumstances, if you are exercising for less than 45 minutes, water is perfectly fine,” she says.

Myth: Eating at night makes you fat.

Truth: “You could eat dinner at 10 p.m. every night and still be at your ideal body weight,” says Gans. “It’s all a matter of how many calories you consume at that evening meal.” The problem isn’t what time you eat, she says, but how much you eat. People who eat late may be more likely to overeat because they have gone too long without eating and can’t catch up with their hunger. As a result, they continue grazing after dinner. “If your schedule is crazy and you can’t eat dinner until late at night, don’t fret,” she says. “Just make sure you are eating a well-balanced dinner with lean protein, a salad, maybe a small baked potato and a huge helping of steamed veggies, and you’ll be fine.”



Smile and Say, ‘Cheese!’

The camera’s development has been nothing short of remarkable

BY MARY ELLEN MILLER

Anyone with a cellphone can take instantaneous pictures today. But it wasn’t always so. Although the idea of capturing and holding images goes back centuries, it wasn’t until relatively recently that humans could actually pull it off.

The first casual reference to the optic laws that made the first pinhole cameras possible dates back to around 330 B.C., when Aristotle questioned why the sun could make a circular image through a square hole.

The Persian scientist Ibn al-Haytham wrote in his “Book of Optics” (1021) about the camera obscura, an optical device that serves as a sort of projector. The earliest of these, which became practical in the 17th century, were room-sized and used a pinhole to project an inverted image of a brightly lit scene onto a viewing surface. An artist could then trace the outlines of the image.

The American inventor George Eastman helped transform photography from an expensive hobby to an immensely popular pastime.

Still, there was no way to preserve the images until the invention of photographic processes. And with a growing middle class in the 19th century, there was a demand for pictures, as evidenced by the popularity of silhouettes.

Around 1827, the French researcher Joseph Nicéphore Niépce created the first photograph by copying a copper etching directly onto a bitumen glass plate. Although the image gradually faded, the concept of photography was born.

Niepce teamed up with Louis Jacques Mande Daguerre in 1829 to develop the process for creating permanent photographs. But by the time the process succeeded eight years later, Niepce had died, passing in relative obscurity.

In the end, those first pictures became known as daguerreotypes. To produce them, Daguerre first coated a copper plate with silver, then sensitized it to light by treating it with iodine vapor. Daguerre developed the image by using mercury vapor, then fixed it with a strong solution of salt.

The American inventor George Eastman helped transform photography from an expensive hobby to an immensely popular pastime. In 1884, he patented the first film in paper form and by 1888 offered his first camera, the “Kodak.” The Eastman Kodak Co. was established in Rochester, N.Y., in 1892, and its flex-

ible transparent film proved vital to the subsequent development of the motion picture industry. By 1900, Eastman introduced the Brownie, a simple box camera that gave birth to the snapshot.

In the 20th century, technological advances to the camera continued at an accelerated pace: in 1913, the 35 mm camera was created; the flash bulb was introduced in 1927 by General Electric Co.; Kodak started marketing Kodachrome film in the 1930s; and



Vintage Polaroid camera

in 1947, the concept of the Polaroid camera was introduced. With its self-developing film, “instant” photos became possible. By this point, cameras and family snapshots had become ubiquitous and a staple of every household.

In 1975, Eastman Kodak engineer Steven Sasson built the first digital camera as a side project. The invention, about the size of a toaster that held .01 megapixel and used 16 batteries, was patented and forgotten—more a technical exercise than anything else.

Expensive to operate and poor in image quality, the first digital cameras were used mainly by the news media. But by the 1990s, advances in technology made it possible for high-resolution, relatively low-cost digital cameras to hit the commercial market.

Consumers, smitten by the opportunity to see, save and transmit images with ease, turned their back on film and never looked back. Today, an estimated 80 percent of U.S. households own digital cameras. And worldwide, digital camera sales are expected to surpass 138 million cameras by 2015—giving camera makers good reason to smile wide. ■



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