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OIL MADE EASY

by Dale Speirs

OIL 101 by Morgan Downey (2009, hardcover) is a textbook-style introduction to all aspects of the petroleum industry. It is a good reference for anyone seriously interested in learning about the business and how it got that way. You can learn about API, viscosity, condensates, and other terms. Sprinkle them into your conversation when arguing Peak Oil with someone and you can impress them to no end.

As It Was In The Beginning.

Downey begins with the history of the petroleum industry, although he gets off on the wrong foot by dating the world's first oil well to Pennsylvania in 1859. It wasn't even North America's first well. In 1858, an oil well was sunk at Oil Springs, Ontario. Oil seeps had long been exploited around the world as medicinal and waterproofing material, but the first well done for the purpose was the Ontario well.

The initial demand for oil was to refine kerosene from it for lamps. Gasoline and diesel were waste byproducts and were flared or dumped until the arrival of mass-produced automobiles in the early 1900s. The gasoline engine invented by Nikolaus Otto and the high-combustion engine of Rudolph Diesel

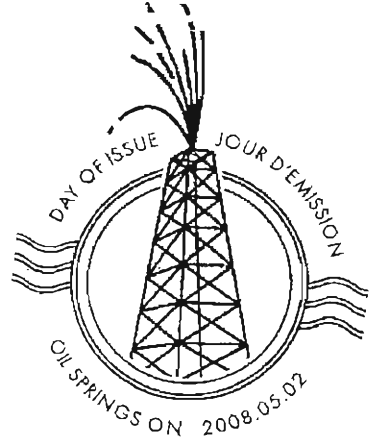
eventually made a market for those fuels. From its very beginning, the petroleum industry has been plagued by boom-bust cycles. In 1860, oil sold for $18 a barrel, or $375+ in today's money. It then collapsed to 10 cents a barrel ($2.60 today) a year later as the rush to drill oversupplied the market. The reason oil is measured in barrels today is because there were no pipelines back then, and oil was hauled to market in wine barrels.

John D. Rockefeller started in the petroleum business in 1865 and by 1890 controlled 90% of the market. The trust-busters smashed his monopoly in 1911, and broke his company apart into several competing firms. The descendants of those firms are known as the Seven Sisters, although because of mergers there are only five now (ExxonMobil, ChevronTexaco, ConocoPhillips, BP, Royal Dutch Shell). Other categories of oil companies are the nationals (Saudi Aramco, etcetera) and the junior petes or independents (thousands of them).

The earliest American wells seldom produced more than 50 barrels per day (bpd). In 1901, the Spindletop well in Texas became the world's first gusher when it blew in at 50,000 bpd and set the USA on its way to world domination of the petroleum industry. Overproduction damages oil reservoirs and reduces the amount ultimately recoverable, so governments had to step in and regulate production. The rise of the automobile meant that oil was now refined for gasoline and diesel. Kerosene became a

waste product as oil lamps were replaced by electricity, and did not become valuable again until the invention of the jet engine. Until 1973, the USA controlled world oil prices. If the Arabs got uppity, Texas would undercut the price by boosting production. In 1970, American oil production peaked and Texas could no longer control the markets. It took a year or two for others to realize what was happening, and the 1973 Yom Kippur War to trigger action, but by the middle 1970s the Arabs were in charge. In 2006 (plus or minus a year or two), Saudi oil production peaked, and then nobody was in charge.

Downey provides a useful set of graphs and summaries to explain the history of modern oil. He goes on to discuss pricing mechanisms and how we came to have the oil futures market, which only began in 1978.



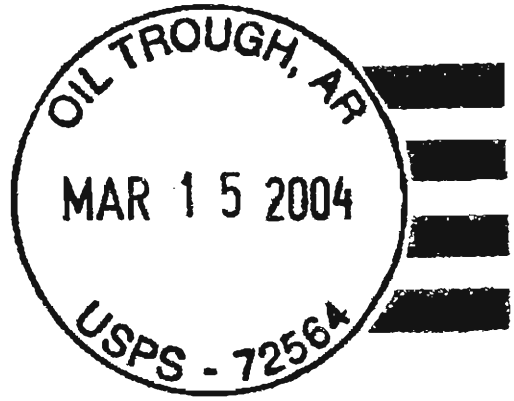
Postmark celebrating 150th anniversary of first oil well in North America, drilled in 1858 at Oil Springs, Ontario.

From there he considers Peak Oil. It should be understood that there is no serious argument about if Peak Oil will occur, only when. The optimists say Peak Oil is still 40 years away, and the realists say it is happening circa now.

Know Your Oilfield.

In the second chapter of the book, Downey switches from history to textbook mode, explaining all the technical details of the industry. Every oilfield is different, and each deposit of crude oil varies in chemistry, energy content, and ease of flowing. Reservoirs are not underground caverns but more like sponges. Oil may be tightly held in the pores of the rock, or might flow easily. It may be in one thick layer or in a series of thin strata. There are about 71,000 oilfields around the world but only 317 of them produce 60% of the world's oil. The addition of new oilfields worldwide has been less than the production drawn from them since 1988. The oil may be sour (high sulphur content), acidic (dissolves the pipeline and refinery equipment), or highly viscous (thick). When processed into fuels and lubricants, a barrel of oil will produce more than a barrel of product because the large hydrocarbon molecules of the crude are split into smaller molecules which occupy more space. The total weight, however, remains the same, so the law of matter conservation is not actually violated.

Chapter 4 goes into more detail about the chemistry of hydrocarbons, from the simplest (methane or natural gas) to the most complex (bitumen or tar). It should be noted that the so-called oil shales do not contain oil; they contain kerogen, a type of wax. Refineries crack the complex hydrocarbons of crude oil into smaller molecules, and also combine simpler hydrocarbons to build up fuels or chemicals. The explanation of chemical bonds and molecular structure of all the types of hydrocarbons will probably be too much for most people, but as a university B.Sc. graduate I found it straightforward. You can skim through it and pick up the basic points without having to memorize the difference between butane and propane.



The Business.

Chapter 5 is an overview of the petroleum industry, from upstream (exploration and production) to midstream (pipelines and tankers) to downstream (refining and retailing). Most companies specialize in only one aspect, and those who cover all three are said to be vertically integrated. National oil companies (NOCs) are owned by governments and control the majority of the world's oil. The Seven Sisters, often blamed by the North American public, only control a few percentage points. OPEC countries produce statistics about their production and reserves that are a tissue of lies, so commodity brokers have to resort to counting tankers to guess how much oil they produce. Saudi Arabia has not discovered a new oilfield on land since the 1960s despite intensive drilling, and have since begun drilling offshore (extremely expensive), which speaks volumes about how much oil they actually have. NOCs and the Seven Sisters are vertically integrated, while junior petes concentrate almost exclusively on upstream oil. Downey provides an extensive checklist of petroleum companies and what they do.

Chapter 6 looks at the upstream end of the business, explaining how oil companies obtain the rights to drill for oil and how they pump oil up the borehole. A popular misconception is that pumpjacks pull the oil out of the surrounding rocks, but this they cannot do. The oil flows on its own, accumulates in the borehole, and then is pumped out of the hole. More oil then flows into the hole on its own but the pump itself cannot suck the oil into the hole. This is why reservoir pressure is so important to oil producers. Under ideal conditions, up to 60% of the oil can be recovered but the worldwide average is about 30%. The rest of the oil is called stranded oil, and no amount of re-pressurizing will pull it out.

From Fool's Gold To Black Gold.

Downey then discusses the origin of oil. All oil starts with kerogen, the waxy material produced from decaying microscopic organisms (and not dinosaurs as popularly believed) that were buried in sediments and later compressed into rock. Some people advocate abiogenic oil, that is, created by non-biological processes, but since every oil field ever found has organic molecules mixed in, few believe in it. At sufficient depth, the heat and pressure of the bedrock cracks the kerogen molecules into crude oil and natural gas (methane). These lighter molecules then rise to the surface over time and dissipate. If they encounter a layer of impermeable strata, known as a cap rock, they will accumulate and form an oil and/or gas field. The vast majority of petroleum ever formed was not trapped but made its way to the surface. The Athabasca Tar Sands are one such example; the lighter hydrocarbons such as methane and condensates (butane, propane, ethane) have already volatilized into the atmosphere and

only the heavier bitumen (tar) is left. If humans had not come along, the bitumen would have slowly decayed over the millennia and eventually all the oil would be gone. There are many geological deposits around the world which once held oil millions of years ago but have nothing now, only a few stains.

Prior to the 1920s, geologists could only hunt for oil by looking for geological fault lines exposed on the surface and guessing which might have oil traps. Seismic surveying, using underground sound waves, made an immense difference and considerably reduced the number of dry holes drilled. In the 1990s, super-computers had advanced to the point where 3-D seismic images of underground strata could be obtained. The next step is drilling, and Downey explains the basics of how a drilling rig operates, from the drill bit at the bottom of the hole to the crown block at the top of the rig, and from the mud logger (geologist) to the roughnecks (drill pipe handlers) to the Company Man (oil field supervisor). Drilling technology has advanced tremendously in the last two decades with the advent of steerable drill bits that can turn sideways and go horizontally. Most oil deposits are horizontal layers or nearly so, so this makes better economics than numerous vertical wells as had to be done in the old days. It is compulsory for offshore drilling where costs start at $1 billion just for the rig, so multiple horizontal lines from one drill site are the only way to go.

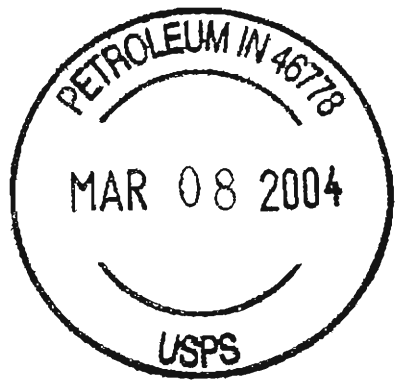
Having found oil, the next worry is reservoir pressure, which indicates how easily the oil will flow. Most oil wells flow naturally when first drilled. Natural gas will be on top of the oil pressurizing it (which is why the gas is not withdrawn until last), and water below pushes up on the oil. Production is a delicate balancing act to pump out the oil first, without bringing up water or gas. Eventually the pressure drops and the oilfield has to be injected with nitrogen gas, carbon dioxide, or seawater to allow natural flow to resume. Remember that the well site pump does not suck oil out from the reservoir, only from the borehole. It is the reservoir pressure that pushes the oil towards the pump. The Saudis keep their oilfields producing because of massive pumping stations that inject millions of litres of seawater per day underneath the oil, which re-pressurizes the field. Older fields commonly bring up large amounts of water with the oil. Some old fields can be fairly said to be water wells that are contaminated with a bit of oil.

The separation of oil and water is expensive but a necessary cost of business. Water is denser than oil and stays beneath it, but if the well is pumped too quickly, water will flow faster through the pores of the oil field and displace the oil from the borehole. Thus, old fields have to be pumped slowly or rested completely, sometimes for years, to allow water to sink back beneath the oil. The Saudis do this frequently, and when they re-start the well, announce it as new production

to mislead Westerners about how much oil they are producing. Ghawar, the world's largest oil field, is kept going only because of massive water flooding. In recent years, carbon dioxide injection to re-pressurize oilfields has become very popular because the oil company can actually make a profit on it by getting a carbon credit. It seems likely that carbon sequesterization will become widespread in North America and other oil-producing countries which have heavy industry or other carbon dioxide emitters. The Alberta tar sands operators in particular are falling over themselves to dispose of their emissions this way. The Saudis have little industry and few refineries, so they will continue pumping seawater underneath their fields.

From Black Gold To Real Gold.

In Chapter 7, Downey looks at refining, a much mis-understood and maligned industry. Refineries are purpose-built for a specific type of crude oil. Since every oil field produces a different type of oil, crudes are usually blended to get the proper proportion required. The advent of Peak Oil meant that less of the traditional sweet light oil was available and more of the heavy sour oil was on the market. As a result, refineries have had to rebuild to handle the new types. American refineries had to be renovated to take Athabasca syncrude, and Saudi refineries to take the heavy crude they are now pumping from their fields. One barrel of crude oil will produce more than a barrel of product, although the weight is the same. This comes about because the oil hydrocarbons are cracked into smaller molecules such as gasoline or diesel. The difference between the price of crude oil and the price of the products is called the cracking margin or crack spread, and is what determines the refinery's profit margin. During the 2008 oil price spike, many refineries lost money because the crack spread was too small.



The crude oil is fed into the base of a tall tower called the fractionator or atmospheric distillation unit (ADU). When you next drive by a refinery, look for the tallest tower; this is the primary ADU where everything begins. High-temperature steam is injected into the base of the ADU to vapourize the crude oil. All the way up the tower are trays. As the oil vapours rise, they break apart into smaller molecules. The smallest molecules rise the highest, and at each tray level, different fractions of the vapours condense and are drawn off. The lightest molecules are the gases, and are used

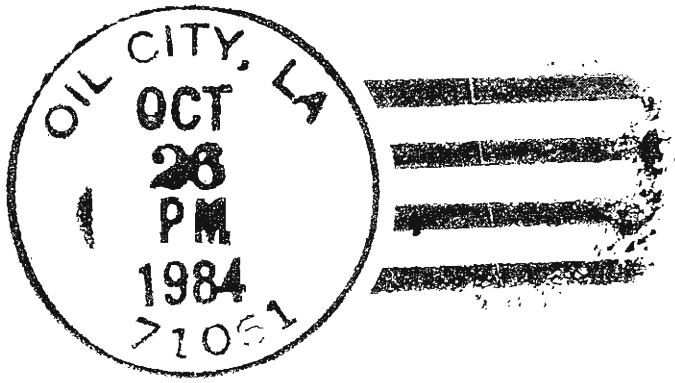
to heat the steam boiler. The heaviest molecules are bitumen, and settle on the bottom trays. Other fractionator towers purify or further crack each of the fractions. Crude oil breaks down into products in a strict ratio depending on the initial blend. It can't be used to produce 100% gasoline or 100% jet fuel (kerosene), but always produces a mix of different types of fuels, lubricants, gases, and crud (bitumen and coke). This is why refineries can't just ramp up production of one type of fuel during a shortage. Europe runs mostly on diesel, so they export gasoline to the USA, which runs mostly on that fuel. Alberta needs to liquify bitumen (which doesn't flow naturally) in order to pipe it to refineries from Athabasca, so it imports naptha and other light condensates from the USA. Over the next several chapters, Downey goes into all the different types of refining processes and products therefrom, which I won't bore you with. It's quite an extensive list, from fuel to plastics, and emphasizes just how important petroleum is to our way of life.

From Point A To Point B.

The transport of oil is discussed in Chapter 11, starting off with tanker ships. They range in size from coastals (up to 42,000 barrels), panamax (up to 600,000 barrels, the largest size that can fit through the Panama Canal), suezmax (up to 1.3 million barrels, the largest size that can fit through the Suez Canal), to supertankers (up to 4.2 million barrels, can only sail in oceans). Tankers are mainly used for transport but are often used for storage, either for practical reasons in a harbour, or by speculators holding the oil in international waters. The speculators are betting that the future price will increase enough to provide a profit after the rental cost of the ship is paid for. In early 2009, there were dozens of supertankers just outside American waters waiting for a better price. At $50/barrel, a supertanker will be carrying $210 million of oil, so this kind of betting is strictly for the big boys.

Pipelines are the major method of petroleum transport. The companies that operate them are usually specialists, rather than oil companies, and take petroleum from a wide variety of producers. Pipelines are more efficient than tankers because they flow continuously, whereas ships are batch transporters. (A basic law of engineering is that any type of process is more efficient when done continuously rather than in batches.) Pipelines also have the advantage that they do not have backhaul problems like ships, which usually have to return empty to pick up another load. In Russia and many parts of Asia, petroleum is hauled by railcars, which have the trouble of backhaul. Pipelines in many parts of the world have to cross through many nations, requiring international agreements among countries who often are barely speaking to each other or even at war occasionally. In North America, this is not a problem between Canada and the USA, but Europeans have been held hostage for their

natural gas supplies by war between Russia and Georgia, or tit-for-tat embargoes between Russia and Ukraine. Regardless of how petroleum is transported between the well and the refinery, the trip between refinery and service station is always by tanker truck.



Storage of petroleum ranges from underground caverns to aboveground tanks to floating ships. Oil pipelines can never be drained unless it is intended to permanently close them, so this constitutes a method of storage as well, 260 megabarrels in the USA alone. The problem in storage is not so much the actual storage but when to do it and how fast to draw it down. Seasonality can be predicted, such as western Canada using more natural gas in winter because all our buildings are heated by it, and Americans burning more gasoline in summer because that is the tourist season. Wild cards are hurricanes which can knock out refineries, extended cold weather anywhere which empties out storage faster, and contango (oil futures priced higher than current spot markets) which increases demand for storage so owners can take advantage of higher prices several months ahead.

Lies, Damned Lies, And Oil Reserves.

Reserves are the thorniest problem in petroleum statistics. In countries such as Canada, USA, and the European Community, auditors ensure that oil producers are reasonably accurate in estimating the remaining oil reserves. OPEC nations lie blatantly and overstate their reserves so they can cheat on their quotas. Reserves numbers are also affected by the quality of the oil. Much of the oil in a field can never be recoverable by any means because it is bonded too tightly to the rock. Other types of oil may be too thick to melt out, or have chemicals mixed in that cost too much to remove. There are also cases of stranded assets, where the oil or gas cannot be taken out because the field is too small or underneath a city. As an example, Calgary sits atop a large field of sour natural gas. Out in the country, siphoning off this type of gas, with its high concentration of deadly hydrogen sulphide, would be risky but could be done. In the middle of a

city of 1.1 million people, it is out of the question. A leak would kill or incapacitate hundreds of thousands of people, and the tolerance for error is zero. Thus the Calgary gas will never be drawn off, and is stranded underground.

Downey discusses the futures market of oil in several chapters. Commodities are bought either on the spot market for immediate pickup or delivery or sold in advance by producers for future delivery. Like other commodities, oil can be bought for future delivery, whether next month (known as the front month), six months from now, a year, or even several years from now. An oil futures contract is 1,000 barrels, usually FOB at a central distribution point such as Cushing, Oklahoma, or Sullom Voe, Scotland, or Hardisty, Alberta.

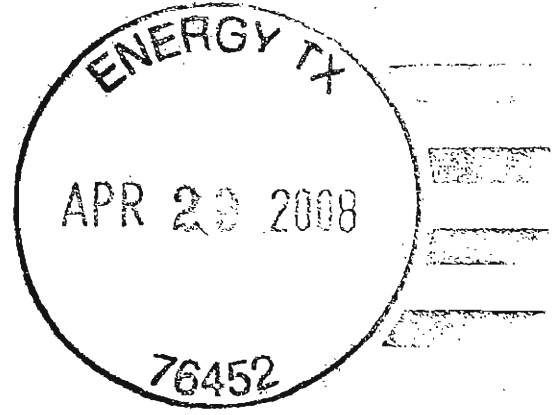
Every oilfield is different in terms of chemistry, so each oil well is compared to a standard and the actual selling price adjusted accordingly. In North America, the standard is West Texas Intermediate (WTI). If an oil producer is selling oil from a well in North Dakota that has 90% of the energy content of WTI, the actual price will be 90% of whatever WTI is selling for on the New York Mercantile Exchange. In Europe, the standard is Brent Crude from the North Sea, in Africa it is Bonny Light from Nigeria, and in the Middle East it is Ras Tanura from Saudi Arabia. A very good computer system is needed to track all the thousands of different grades of oil on the market and their price relationships, which is why the oil futures market didn't begin until 1978 when advances in technology made it feasible. Prior to the advent of the futures market, buyers and sellers negotiated individually and had great difficulty in determining what was a fair price relative to what other people were paying.

Producers will sell some of their production on the futures market to guarantee a fixed price for themselves, while purchasers buy them to protect against price increases. This is known as hedging. When the contract comes due, the buyer has to either accept delivery or sell the contract to someone who will. Speculators bet on hundreds or thousands of contracts at a time, and since they have no room in their office suites for 100,000 barrels of oil, they always close out their front-month contracts for cash. If genuine oil users, mostly refineries or chemical plants,

don't need much oil, the speculators have to sell at a steep discount or else roll over the contract another month for a fee. Betting on commodities contracts is worse than betting in Las Vegas. Either way, you eventually lose your money but at least the casinos give you free drinks and a floor show. Some of the big-time speculators actually own their own storage tanks or supertankers to prevent losses, as they can take actual delivery and wait out a down slope in prices. If oil futures contracts are higher than the spot market, the futures market is said to be in contango. If future prices are lower than the spot market, this is backwardation. As of middle 2009, the oil market was in contango, meaning that both producers and buyers were betting prices would go higher.

Like the stock market, there are all kinds of variations such as buying on margin (borrowed money), puts and calls (the right to sell or buy at a given price in the future if desired), and derivatives (the kind that caused so many tears in the American mortgage industry). Even the big boys get hurt frequently playing the futures market, so commodities trading is not recommended for individual investors. Downey doesn't discuss this but safer methods to play in oil are to buy mineral rights (I was lucky enough to inherit some), private-equity junior petes (start-up oil companies that drill infill wells in known oil-producing areas), or royalty trusts (regular dividends from established producers).

Other than the one clanger at the start of the book where Downey says the first well was in 1859 in Pennsylvania, I found the book read well. (I, and many other Canadians, have since mentioned it to him on the blog theoildrum.com, and he has promised to remedy this in the second edition.) For anyone seriously interested in the subject. it is a useful textbook and will give you an excellent overview of the market. Well recommended.



SEEN IN THE LITERATURE
noticed by Dale Speirs

Hidalgo, C.A. and R. Hausmann (2009) **The building blocks of economic complexity.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 106:10570-10575

"*As people and firms specialize in different activities, economic efficiency increases, suggesting that development is associated with an increase in the number of individual activities and with the complexity that emerges from the interactions between them. Here we develop a view of economic growth and development that gives a central role to the complexity of a country's economy by interpreting trade data as a bipartite network in which countries are connected to the products they export, and show that it is possible to quantify the complexity of a country's economy by characterizing the structure of this network. Furthermore, we show that the measures of complexity we derive are correlated with a country's level of income, and that deviations from this relationship are predictive of future growth. This suggests that countries tend to converge to the level of income dictated by the complexity of their productive structures, indicating that development efforts should focus on generating the conditions that would allow complexity to emerge to generate sustained growth and prosperity.*"

Speirs: Or to put it into plain English, if you build factories and export products, your country will prosper. If factories are moved to the cheapest country, then your economy will become simplified, that is, fewer jobs and exports. It's always nice to have these things confirmed scientifically.

Bogdanowicz, W., et al (2009) **Genetic identification of putative remains of the famous astronomer Nicolaus Copernicus.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 106:12279-12282

"*We report the results of mitochondrial and nuclear DNA analyses of skeletal remains exhumed in 2005 at Frombork Cathedral in Poland, that are thought to be those of Nicolaus Copernicus (1473–1543). The analyzed bone remains were found close to the altar Nicolaus Copernicus was responsible for during his tenure as priest. The mitochondrial DNA (mtDNA) profiles from 3 upper molars and the femurs were identical, suggesting that the remains originate from the same individual. Identical mtDNA profiles were also determined in 2 hairs discovered in a calendar now exhibited at Museum Gustavianum in Uppsala, Sweden. This calendar was the property of Nicolaus Copernicus for much of his life. These findings, together with anthropological data, support the identification of the human remains found in Frombork Cathedral as those of Nicolaus Copernicus.*

Up-to-now the particular mtDNA haplotype has been observed only 3 times in Germany and once in Denmark. Moreover, Y-chromosomal and autosomal short tandem repeat markers were analyzed in one of the tooth samples, that was much better preserved than other parts of the skeleton. Molecular sex determination revealed that the skeleton is from a male individual, and this result is consistent with morphological investigations. The minimal Y-chromosomal haplotype determined in the putative remains of Nicolaus Copernicus has been observed previously in many countries, including Austria, Germany, Poland, and the Czech Republic. Finally, an analysis of the SNP located in the HERC2 gene revealed the C/C genotype that is predominant in blue-eyed humans, suggesting that Copernicus may have had a light iris colour."

Ramseyer, A., et al (2009) **Decision-making processes in group departures of cattle.** ETHOLOGY 155:948-957

"To keep social cohesiveness, group-living animals have to reach consensus decisions through recruitment processes. We tested these assumptions in a group of fifteen 18-mo-old Charolais heifers (Bos taurus) at pasture, in which two observers continuously videotaped social interactions and group departures after resting periods. These departures were preceded by a phase of preparation characterized by an increase in activity. The number of heifers participating to a movement increased with the number of group members oriented in the direction of the movement before departure. The first moving animal also recruited a higher number of mates when it had a greater number of close neighbours, the first individuals to follow being mainly its preferential partners. Coercive interactions such as pressing behaviours were observed within the 5 min preceding or following departure. After departure, the numbers of walks and restarts of the first two movers were still operative in recruiting others. The frequency of pauses of the first mover was significantly higher when it was not followed, meaning that it adjusted its behaviour to that of other group members. Decision-making was distributed among group members, with any individual being liable to move first. The behaviour of cows and their spatial distribution before departure, at departure and after departure significantly affected the number of participants in the movement, demonstrating that decision-making was time-distributed in the studied cattle group."

Speirs: I was interested to read this partly because I don't find too many scientific papers dealing with Charolais cattle, which is what my father kept, and because the behaviour described fits with what I remember from my boyhood days. I recall leaning on the pasture fence and watching the "Should I stay or should I go?" behaviour of cattle, much like a cocktail party about to break up or a group of kids in the shopping mall. We are all mammals.

LETTERS TO THE EDITOR

[Editor's remarks in square brackets.]

FROM: Jerry Kaufman 2009-06-14
Box 25075
Seattle, Washington 98165

What interests me about steampunk right now is the way it has turned into a sub-fandom, with a slant toward dressing up in Victorian-style clothing and creating Victorian-style high-tech gadgets and guns. The fans take their cues as much from comics like GIRL GENIUS as from books by Powers. We in Seattle are going to see a steampunk convention soon, and I am sure there are others around North America.

[Steampunk has now arrived in Cowtown. The Trekkies seem extinct, notwithstanding the new movie, and top hats and Gibson girls have replaced Klingon foreheads.]

FROM: Franz Zrilich 2009-06-23
4004 Granger Road
Medina, Ohio 44256-8602

[Re: review of book on investing in gold] The problem with gold is that very little is produced each year. China, Japan, and Europe are nervous about the American debt, as the easiest thing for the American government to do is to print more currency.

[The total amount of all gold ever mined is about 5 billion troy ounces, and the annual addition to that stockpile is only 80 million ounces per year and declining. If even a small percentage of the sheeple suddenly wake up and decide to protect their net worth by buying a few gold coins, the market would be wiped out of inventory and the price of gold would soar into the thousands of dollars per ounce. The annual increase in circulating gold is about 2% a year, whereas the annual increase in fiat currency is several hundred % since the Panic of 2008. The gold bugs and China are tiptoeing to the exit, hoping to buy enough gold on the cheap before the rush erupts.]

If a huge and concentrated deposit is found, then you are screwed. I am told that such deposits are known to exist off the coasts of Oregon and Washington in submarine volcanic areas that are currently off limits to miners, but for which plans for robot bulldozers exist.

[Currently it costs $400 (Ontario) to $500 (South African deep mines) per ounce to mine gold on land, and even supposing those offshore deposits could be mined, their costs would be much higher. This puts a floor under the price of gold.

An analogy is

Peak Oil; the easy conventional oil costs $30 to $50 to produce but is in decline, while the offshore, Arctic, and tar sands oil are far more expensive.]

An admittedly remote possibility exists that folks in low-energy nuclear research might be able to make gold.

[Particle physicists already know how to create gold from mercury isotopes. The catch is that because of energy costs, it is far more expensive to produce it than what the gold is worth.]

FROM: Sheryl Birkhead 2009-08-14
25509 Jonnie Court
Gaithersburg, Maryland 20882

I looked into small gold purchases one or two years ago, but even small purchases were beyond my budget. At the same time I asked my stockbroker to liquidate about one-third of my account and let him talk me into not doing it. His rationale was that I could always get the money when I needed it. Yeah right, until 2008-2009 happened.

[Stockbrokers and bankers don't make money when their clients are in physical gold. They make it from trading commissions, which is why they want to keep their clients in paper. Gold is

available in one-tenth-ounce coins which may be more affordable. If still too much for your budget, consider silver coins currently about US$15 per ounce. Gold is back up to where it was before the Panic of 2008, while stocks are still only about halfway from their peak.]

FROM: James N. Dawson 2009-07-13
Box 292
Malden, Washington 99149

You seem more forgiving than I've been of the Post Office for its recent steady price increases, service cutbacks and mailing restrictions, and more optimistic about the future of the Papernet. It seems even most of those who laud it do most of their communication on the Internet. Many Interneters disdain or ignore it. The post office, at least here in the USA, seems to be trying to get as few people to use it as possible and view its most enthusiastic customers as nuisances, especially mail artists with their annoying non-standard mailings.

[Canada Post isn't such a problem in my experience; it has the advantage over USPS in that Canadian politicians aren't allowed to interfere with its operations. The USPS, for example, has to pay billions per year into a federal pension plan for non-USPS employee time, and can't close unneeded post offices or sorting

plants because of congressional interference. I get about thirty pieces of mail a day (which includes my business and two estates I administer) and very seldom have trouble. I hear lots of stories from Internet users complaining about their ISPs or software problems, so the Internet isn't as free and easy as some purport. I keep both my laptops off-line and use the University computers for my e-mail and Web browsing once a week, and therefore don't have to worry about hackers or viruses.]

I'm one of those persons who likes to print out e-zines and other documents, so I appreciate it when e-publishers design their Website for this. I don't have any trouble reading your landscape pages but I wonder if I would if they were bigger. It may be that I'm just set in my ways, but I prefer the standard portrait configuration in zines and books. Landscape books stick out like sore thumbs when you try to shelve them.

FROM: Brant Kresovich 2009-05-30
Box 404
Getzville, New York 14068

[Re: alternative history] I've read "SS-GB" by Len Deighton. The setting of this whodunit is the United Kingdom which has been conquered and occupied by Nazi Germany. The title means "Schutzstaffel - Great Britain", the branch of brutes that runs the Nazi bureaucracy in GB. The time is late 1941, a little less than a year after the British surrender. A British homicide detective assigned to Scotland Yard, like most of his compatriots, is torn between patriotism and professional duty to find a killer. He begins investigating what looks like a usual murder in London, but which takes him into the highest levels of the occupation government. For some reason the secret resistance movement seeks out his help, but Deighton does not make it clear why this should be. Kind of weak.

Deighton wrote another novel "XPD" that is not quite so alternative, but plays fast with history. In it, Winston Churchill, of all unlikely people, was a big appeaser. Supposedly in 1940 he had a secret meeting with Hitler in order to work out a deal for peace in exchange for recognizing German claims in Europe. In the late 1970s, when the novel is set, the papers documenting this scandal may be leaked, which may cause chaos in middle Europe. I seem to recall the plot being very complicated. This being the second mediocre book of his that I read is probably the reason I stopped reading Deighton.

[I object to alternative history which changes the personalities of real-life characters. A better divergence might have been Churchill not surviving the car accident he was in while visiting New York City in 1929, and thus plausibly eliminating his strong voice against appeasement.]

FROM: John Hertz 2009-05-28
236 South Coronado Street #409
Los Angeles, California 90057

[Re: "alternative" history being a lost cause against "alternate"] Why call it a lost cause? All those people who say language is made by people seem to forget that they too are people and making language. As Fowler said, "Every just man retards the progress of corruption". Good changes should be promoted, bad changes should be fought, indifferent changes should be neglected.

FROM: Lloyd Penney 2009-07-21
1706 - 24 Eva Road
Etobicoke, Ontario M9C 2B2

I do like alternative history or at least the idea of it and not the execution of it. Much of AH is military-based and I have no time for that. Yvonne and I have gotten very much into steampunk, not just for the ideas behind it, a genteel era with a lot more tech, but also the costuming aspect. We haven't been involved in costuming for more than 20 years, but have returned to it via steampunk, and having a fine time with it.

Stephen Leacock is one of my favourite Canadian writers, mostly

because learning about his books was compulsory for any student living where I was, in Orillia, Ontario. This was the real Mariposa of his fiction and where Leacock lived a good portion of his life.

[It reminds me of growing up in Red Deer, Alberta, where nature writer Kerry Wood lived, and all of us schoolchildren were force-fed his most famous novel MICKEY THE BEAVER. A major street is named after him, as are the local natural history museum and assorted buildings, bridges, and schools. We lived just down the road from his place, although he was before my time and I never knew him personally. It wasn't until I went off to university that I discovered the rest of the province had never heard of him.]

[Re: Calgary Stampede rodeo] Saw the Stampede's come and gone, and numbers are once again down. Every special event like this in any place is having a difficult time getting people to part with what little money they have.

[The Stampede was down this year because of constant rain. I didn't go this year myself, and I have been there just about every year since I moved to Calgary in 1978.]

I Also Heard From: Brian Kent, Randy Robbins, Jon Hart, Henry Welch, Ken Faig Jr, Christopher Carson