

Journal of the SURGICAL HUMANITIES



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COVER PAGE

From series of paintings: "Mutants"

Oil on canvas

Alfredo La Placa

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Suma Orco, 2007 (Detail)
Oil, 5079 cm X 3331 cm
Alfredo La Placa

■ EDITORIAL

Francis Christian, MD, PhD, FRCSC, FACS
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Human beings have the ability to diminish, even banish, unpleasant experiences by sequestering them first in the subconscious and then, perhaps, in the far reaches of the unconscious. The disturbing experience, like Orlando in “As You Like it,” is expelled into a remote forest and the royal court of the mind can resume its celebrations, as if it never existed.

Thus it is that we, perhaps uniquely among living, sentient creatures can move through life from one tragedy to another, from one staggering blow that doesn't quite fell us to another and from seeming to completely fold under the weight of sorrow... to rise to another dawn and carry on. Or, as much more eloquently described in the Gospel of John, “Where sin abounded, Grace did much more abound.”

There is another kind of despair which stalks in the shadows and moves in and takes hold of the human spirit - and then clings on with a tenacious longing. It starts as a purposeful, often pleasant and always deeply fulfilling plunge into the depths of our own highest, purest, deepest natures. It elevates our own spirits to the very doors of heaven and we linger awhile with the Angels themselves. We rise on the wings of creative pursuit and touch the Aeolian harp of music, writing, drama, crafts, painting, sculpture... and in our own lives realize triumphantly, the quiet magic of creating something new for ourselves.

And then the fair winds cease completely and the harp grows silent; perhaps a storm blows in and discordant noises arise where once only the sweetest melodies

were heard. Or, as is more commonly the experience of mankind, other mundane pressures prod into the sanctuary of our souls and drive the creative instinct from its home. And in the face of such assaults on transient time as university, residency, nurse or physician work, family, friends and common hardships, we slowly let the prize slip from our grasp.

The slide from glory to seeming oblivion is seldom catastrophic and sudden - it begins as a conscious, yet infrequent subduing of the competing voice of art and its claim upon our souls. The rational methodologies we learn so well then play their part in using “reason” and “good sense” and perhaps also, well meaning advice, to discourage the flourishing of the creative instinct within us.

The remarkable gift we possess of being able to send our painful experiences to the netherworld of the subconscious, now leaps to life in a new and sinister fashion - and starts dismantling and moving out brick by living brick, the creative spirit we have nurtured within us. The same process, otherwise hallowed and sacred for its ability to rescue vital life from moribund despair, works in directly opposite ways and slowly submerges our bold attempts at building the creative life, until that part of our existence gasps and sinks into a rather tepid ocean of “more practical things.”

But since Grace does indeed “much more abound,” and must do so in all circumstances, it turns out that this crying need to fulfill our deepest yearnings for making something new, never quite disappears.



Apparently completely demolished, the “foe” never quite accepts defeat. It knocks again and again on our soul’s door and asks to be let in. It skirts the margins of our daily, busy lives and beckons seductively to a different future. And once it detects even a slight lowering of our defences, a mere crack in the door, it will often take hold of us whether with fragile, timid grip or strong embrace.

This journal fights alongside the creative spirit and answers to its command. It too beckons to a different, more fulfilling future and an adventurous following after the siren call of art.

A handwritten signature in dark ink, appearing to read 'F. Christian', written in a fluid, cursive style.

Francis Christian
Editor-in-Chief



Suma Orco, 2007 (Detail)
Oil, 5079 cm X 3331 cm

■ THE COLOURS OF EQUANIMITY

About our cover artist and his work...

Ivar Mendez, MD, PhD, FRCSC, FACS
Fred H. Wigmore Professor and Unified Head
Department of Surgery
University of Saskatchewan

“Everything has a color, a texture, and a specific order even abstract concepts. I try to express freedom, passion and equanimity in my paintings,” Alfredo La Placa tells me in a soft but firm tone when I ask him about the meaning of his paintings.

At 86 years of age, La Placa is one of the most recognized South American painters, his energy and creativity untouched by the passage of time. He was born in the heart of the Bolivian Andes in the city of Potosi legendary for its fabled mountain of silver. It is said that the amount of silver taken from Potosi was so vast that a bridge made of pure silver could have been built from the Andes to Spain.

Although he has been painting professionally for the past 55 years, his first love was medicine. After winning a prestigious scholarship, he started studying medicine first in Argentina and then was sent to one of the world's oldest institutions of higher learning, the University of Pavia in Italy, alma mater of such scientific luminaries as Camillo Golgi and Alessandro Volta.

Young Alfredo felt at home in Italy the birthplace of his ancestors and poured himself into medicine. His favorite subject was neuroanatomy, he was fascinated by the organization and function of the brain and decided he wanted to become a neurosurgeon. He immersed himself in the microscopic world of histology, the

symmetrical patterns of tissues and the beauty of the cellular architecture captivated him and stimulated his sense of esthetics.

In Europe, he was exposed for the first time to world-class museums and art and these new discoveries opened his spirit to a new deeper and undeniable yearning and it soon became clear to him that his true calling was art. After 3 years of medicine he decided to devote his life to painting. However, these years in Pavia studying medicine have had a profound effect on his art.

In his series “mutants”, La Placa ponders the inevitability of aging and death, and on the effects of disease and medical interventions on the

patient. In this series of paintings, he considers the advancement of medical technology, the advent of sophisticated prosthetics and other implantable devices, gene therapy and the promise of stem cells to rebuild organs. The “mutants” appear to be made of different materials that are meticulously depicted by a superb painting technique. Organic elements are connected to non-organic parts yet still maintaining coherence of form and color.

Figurative representations are rare in La Placa’s canvases - a rare exception is “Nictalope” whose curve forms of earthy tones enclose 3 human eyes. There is a mysterious underpinning to the painting as the eyes appear to be from different individuals watching the observer intently. However, the eye in the center appears to be clouded by a dense cataract, perhaps indicating La Placa’s preoccupation with health and disease.

La Placa feels that every element in the universe has a specific intrinsic property and that there is an order and equilibrium in their interaction, a sort of universal homeostasis. The colors, patterns and forms of his paintings reflect this communal homeostasis. Geometrical configurations, rocks, mountains and organic forms are recurrent themes of his art that either in isolation or combined have a chromatic harmony revealing the technical mastery of the artist and his equanimity.

Mutante II, 1975 (Detail)
Oil, 1280 cm X 1279 cm





Nictalope, 1992 (Detail), Oil, 2550 cm X 3300 cm)



Alfredo La Placa, a Bolivian painter born in 1929, is considered one of the most important representatives of the Bolivian abstract art.

He studied medicine in Argentina and Italy and during his time in Italy he abandoned the science of medicine and decided to devote his life to art and painting. While studying medicine, he gained a profound knowledge of the human anatomy and the complexity of its organic structures. He translated this knowledge to his painting.

A long tour of major museums and galleries in Europe, between 1947 and 1952, allowed him to observe the works of the leading masters of classical arts. His work has been inspired by the dramatic geography of the Andes and the ancient cultures of South America.

Since his first group exhibition in 1953 in La Paz, Bolivia), he has had more than 100 exhibitions in galleries, museums and cultural centers in Bolivia and abroad.

■ DISCOVERING HER FREEDOM

Andrea Guebert

Year 1, M.D. Undergraduate Program
College of Medicine, University of Saskatchewan

You were raised in a world
where air became rain
until waves crashed around you,
suffocation and pain.

Tread water or drown,
that was always the game.
Aim for the shoreline
while cursing all whom you blame.

Maybe one day you'll get there,
or perhaps you will drown.
At the mercy of the tides,
could the only way out be down?

The question is answered
as you look down at your skin.
Where goose bumps once were,
now feathers begin

You're colourful, you're radiant,
you're glowing with might.
A bird in the making,
taking freedom with flight.



Through my art, I often try to explore the deeper nature of humanity and intuitively examine that which connects us all at the very core. Sometimes I have a clear idea of what I want to depict before I begin, while at other times the meaning of my work seems to grow and evolve as I paint. This was a painting that evolved. I find it fitting, as this piece is largely about discovery. I do not view discovery as stagnant, but rather as an ongoing process. Titled, “Discovering Her Freedom”, this acrylic painting is a visual representation of the experience of revelation.

In life, I believe that each of us goes through cycles of challenges and despair, and also of growth and joy. Each new experience has the potential to lead to a change in perspective. Life challenges and daily stresses can weigh us down. Oftentimes it becomes too easy to use our own limitations as an excuse for failure or unhappiness. We can become burdened by these limitations or we can look for unique opportunities to tackle problems in new ways. This painting marks a shift from a focus on limitations to a focus on opportunities. More specifically, it is a representation of the initial shock and wonder that accompany not only the realization of, but also the internalization of one's own capacity for joy and greatness.

I chose to incorporate many bright colours into the painting as a reminder that any process of discovery is not always serious in its entirety. Often, much of what we “discover” seems to arise out of happenstance, perhaps due to the role of our intuition. When our patterns of thinking change, we may never even fully understand how we came to some conclusions or insights. The vibrant colours also represent the simultaneous flux of emotions that exist within ourselves and contribute to our uniqueness as human beings. Finally, I also chose to use bright colours in this painting, as they are conducive to painting birds.

Birds have always been my favourite animals. They are deeply symbolic, and to me, represent a



Discovering Her Freedom.... by Andrea Guebert

change in perspective and a certain type of freedom. In my painting, the birds arise from within the figure. Freedom is not necessarily something “out there” to chase after, but rather something within that she can choose to express or let free. It doesn’t necessarily mean that she has no constraints, but rather that she has the power to choose how to confront them. For so long she was stuck in a world seemingly controlled by fate, but this painting captures her expression upon the first realization of something otherwise being possible.

Traditionally viewed as symbols of enjoyment of life and lightness of being, hummingbirds are truly fascinating creatures. They can travel great distances, despite their

minute size, and they have the ability to almost instantaneously change their direction of flight. I see this as the ultimate representation of tenacity, resiliency, and adaptability. Furthermore, hummingbirds beat their wings in a “figure eight” pattern, the symbol for infinity. Perhaps the key to an eternity of enjoyable life is perseverance combined with lightness of being.

Arguably the most revered creature in Mayan and Aztec culture, the quetzal is another deeply symbolic bird. When I traveled to Guatemala, I saw representations of the quetzal depicted on various items ranging from clothing and jewelry to Guatemalan flags and currency. It is said that priests and royalty wore the tail feathers of quetzals. In

fact, the quetzal was considered so sacred in Aztec and Mayan culture that the punishment for killing one was death. They believed that the bird would not be able to live in captivity, so they would pluck the tail feathers and then set the quetzal free. Hence, the quetzal became a prominent symbol of liberty.

Situated at the top of my painting, the quetzal is the embodiment of freedom; freedom of dreaming, freedom of renewal, freedom of unlocking the mind’s potential, and of discovering mankind’s potential for perpetual growth. This is a freedom learned only through the hummingbird’s resiliency, enjoyment of life, lightness of being, and flight with infinity.



Andrea grew up in Calgary, Alberta, and then moved to Saskatoon in 2009 to pursue post-secondary education and play soccer for the University of Saskatchewan (U of S). In 2013, she graduated from the U of S with a Bachelor of Arts Honours degree in Psychology. Her thesis research focused on mental health, substance abuse, risk assessment, and recidivism among young offenders in Saskatchewan. Additionally, Andrea worked for Autism Services of Saskatoon for three and a half years, supporting adults living with moderate to severe autism. She has a strong interest in mental health and in promoting accessible and quality health services to marginalized populations.

Andrea has been passionate about art for almost as long as she can remember. In high school, she began formally taking fine arts classes and she continued to study studio art and art history during her undergraduate degree, eventually earning a minor in studio art. Over the past six years she has also undertaken

many commission projects to raise money for charity and to help fund her education. To Andrea, sometimes art is expressive, emotive, and a release from ordinary life. At other times, it is simply fun, creative, playful, and experimental. She enjoys playing with colour and experimenting with various styles and mediums. She finds herself drawn to faces and loves how portraits can often tell an entire story.

Andrea is currently undertaking her first year of studies in the College of Medicine at the University of Saskatchewan.

■ Music & Surgery: A CONTRAPUNTAL RELATIONSHIP

Peter Dust, Bsc (Hon), MD
University of Saskatchewan

I recently read a fascinating article in the Journal of the American College of Surgeons entitled “Music and Surgery: A Literary Reappraisal” by Moris et al.¹ that got me thinking about my own experience with these two disciplines. Though seemingly disparate, music and medicine have played significant and intertwining roles in my life. Besides providing me with an outlet to achieve a healthy work-life balance, music has taught me many valuable lessons that have helped me succeed in medical school and will, I believe, continue to serve me well throughout my residency.

I first started playing a musical instrument 20 years ago. Like many people, I started with the piano. A decade of piano lessons

taught me many valuable things. These lessons taught me the fundamentals of music theory, knowledge I continue to apply to this day anytime I play an instrument or listen to music. Piano also taught me the importance and value of practicing. Though frequently a fairly tedious chore, repetitively practicing a song or passage over and over again is the only way to improve and achieve the mastery necessary to put on a good performance at a concert. This concept of practicing is highly applicable to medicine and surgery and is the foundation of boot camps and simulation. The only way to become a good surgeon is to put in countless hours honing one's skills. Whether a musical instrument or a surgical procedure, practice truly makes perfect.

My introduction to the French horn occurred approximately 16 years ago in Grade 6 band. While it has since become my favorite instrument to play, the horn was not the obvious choice of instrument for me to attempt to master. Like all Grade 5 students attending an elementary school with a band program, one day toward the end of the school year I participated in the annual band recruitment session. My first attempts at blowing a brass instrument were less than impressive, and if I remember correctly, I do not think I could even get a sound out of the instrument. My father was the one who convinced me that the French horn was the right choice of instrument for me. A French horn player himself, he knew (as any French horn player will tell you)

that the best musicians in a band are always the French horn players. (Other musicians may beg to differ about this statement, but we horn players know the truth...!). He taught me how to make a sound on the instrument, and when Grade 6 started, I became one of two French horn players in the band.

Though no instrument is truly easy to play, the French horn is notorious for the challenges and frequent

frustrations it brings to anyone who endeavours to learn to play it. Producing a sound is not actually the main problem. In fact, producing a sound on the French horn is much easier than producing a sound on its many brass cousins (the trumpet, for

example). The problem is producing the right sound and even more importantly at the right time. The French horn is somewhat unique among brass instruments in that one can produce a large number of very closely related pitches with the same fingering and the same pitch can often be played with multiple alternate fingerings. This fact makes accuracy a nightmare, particularly when one factors in that the French horn has about a five octave range. As one of the

true virtuosi of the instrument, Barry Tuckwell, who in his time was the only full-time solo horn player in the world once said, “playing the horn is like driving a very fast car on an oily road.”² Constant practice helps the accuracy – which is maddeningly always the first thing to go when one takes some time off to study for an exam like the LMCC Part 1, for example! – but the real key is attention to detail and careful listening to one’s own



sound and how it blends with the other musicians with whom one is playing. To be a successful French horn player, one does not just have to practice. One must also pay close attention at all times to what one is doing and have an understanding of what is going on around one. I think it goes without saying that these concepts directly apply to medicine and surgery as well. Failure to comply with the former results in sloppy procedures, and failure to pay attention to the

context in which one is working can lead to inappropriate decision-making and lack of a team approach.

Playing the French horn has afforded me many unique opportunities. I have performed with over twenty different ensembles playing a wide range of repertoire. I have played everything from Edvard Grieg’s Peer Gynt Suite (which contains the famous movement “In the Hall of the Mountain King”) with

the Saskatoon Symphony Orchestra in a combined concert with the Saskatoon Youth Orchestra to an arrangement of Queen’s “Bohemian Rhapsody” for French horn choir. (This last piece was a bit of a stylistic challenge as I am a classically trained French

horn player who was once accused of sounding too operatic.) To perform this wide range of music, I have had to develop another skill that has served me very well so far during my medical training as well: adaptability. The stylistic differences between baroque, jazz, and rock speak for themselves and require consider adaptability on the part of the musician to play them correctly. Similarly, adaptability is an essential skill for any medical student or resident. Every different

preceptor has his or her own way of doing things (I have seen so many different ways to start and finish subcuticular sutures, for example, that I can barely keep them all straight), so being able to adapt to different styles is fundamental to the successful completion of medical and surgical education.

Performing with so many different ensembles has also helped me develop the useful trait of being able to work under pressure. While there is always a certain amount of pressure associated with any concert as you only get one shot to demonstrate your work to the audience, there were

a few concerts that were more pressure-packed than most. The first occurred when I was in Grade 11 and performing for the second year as the principal horn with the Saskatoon Youth Orchestra. That year, for our annual combined concert with the Saskatoon Symphony Orchestra, we played Alexander Borodin's *In the Steppes of Central Asia*. Near the beginning of the piece, there is a very exposed

and harder-than-it-looks-on-paper (recall what I mentioned earlier about being able to hit many notes that are close together with the same fingering) French horn solo. Going into our first combined rehearsal with the symphony, I thought the principal horn of the symphony would play the solo. I am sure one can imagine my

and good preparation for a career in surgery!

Music has clearly played a significant role in helping me become a successful medical student, but medicine has also played a role in my development as a musician. As I have progressed through my education and had a

little less than the 6+ hours per week to play that I had in high school, I have been forced to develop a very valuable musical skill: the ability to sight-read. Sight-reading (for any non-musicians who have had the stamina to make it thus far in this article) is the ability to correctly play a piece of music that one has never seen



surprise (and a certain dread and horror) when I discovered that I would be the one playing the solo! The second concert that really helped develop my ability to work under pressure occurred just over a year later. Toward the end of my Grade 12 year, I was hired to play a professional concert with the Prairie Virtuosi Chamber Orchestra. It was the only concert I have ever played at the professional level

before. More realistically, it is the ability to play a piece one has never seen before correctly enough that it mostly sounds like the intended piece. It is not the easiest skill to acquire and requires a combination of paying attention to what is going on around you, improvisation, and level-headedness. Depending on the skill level of the group with which one is playing, a piece can fall apart very quickly when sight-

reading. To become an effective sight-reader, one has to be able to respond rapidly to any problems that develop, improvise when necessary, and do one's best to ensure all of the vital passages are covered. All the while, one must not get flustered if things start to deteriorate. In some ways, it is similar to dealing with a trauma. One might start a case with a particular plan in mind, but one has to be able to respond rapidly to any problems that develop and be willing to throw the plan out the window if the injuries are more extensive than originally believed. My ability to sight-read was spurred by medicine, but it too, in turn, involves skills that are relevant to successful surgical practice.

Medicine also played a significant role in my development as a musician as it pushed me to become a "low" horn player (a French horn player who specializes in playing in the lowest two octaves of the instrument). Low horn players are a rare breed for several reasons. First, it is technically challenging to play in this range and produce enough volume so that anyone other than the person sitting next to one can hear what one is playing. Second, as most horn players learn to play in small bands and orchestras that usually have incomplete French horn sections (ideally, all bands and most orchestras should have at

least four French horns, but due to the small number of us that play the instrument, this rarely occurs), the low horn part is usually neglected and the players develop their mid and upper ranges in accordance with the parts they usually play. Third, it requires players to be able to read bass clef instead of the much more commonly used treble clef. For any horn player with a background in piano, this skill is pre-



established. For those without this experience or experience playing any other low instrument, this skill can be quite challenging to master. It often surprises me how many good French horn players (some of whom can play much higher than I can) are unable to read this clef in which almost half the range of the French horn can be written. Fourth, it is not the most glamorous part to play. While it is a fundamental part as it forms the root of virtually every chord, low French horn parts practically never get the melody. As a result, low horn players may earn respect and admiration from other

musicians for a good performance, but their work is often overlooked by most audiences. For the average audience member, all of the glory rests on those who play the melody. The bass line is only really noticeable when it is absent or the player makes a series of obvious mistakes. I became a low horn player out of necessity. As I have progressed through my education and had less time to play, my endurance to play high notes, particularly high, sustained passages has diminished. Low horn parts, however, can be played for very long periods of time without getting tired. (When the facial muscles used to create the appropriate buzzing of a player's lips that produces the sound of the French horn start to fatigue, one's ability to create the correct – or even any – sound

decreases rapidly.) As a matter of fact, a low horn player is probably at more risk of passing out from blowing off all of his or her CO₂ than having to stop playing due to fatigue. Converting myself to a low horn player was the only way to continue performing at a high level while pursuing my medical studies. Thanks to the stimulus provided by medicine, I am now a better musician than I was when I played my professional concert with the Prairie Virtuosi Chamber Orchestra and one of a select few players who can provide a powerful baseline to the Saskatoon French Horn Choir.

One final way in which music and medicine have interacted in my life occurred in the year following the completion of my honours degree in physiology. Having failed that year to gain entry into medical school, I found myself with a little more spare time than I was originally anticipating. While looking for things to do, I was asked to play with the Bridge City Brass Band to help fill out their tenor horn section. This request presented an interesting challenge for me because it required me to learn a new instrument. In British brass bands, the tenor horn is used instead of the French horn. While the instrument may cover similar parts to what would be covered by a French horn in other ensembles, the tenor horn is a very different instrument. Its range is more limited, it is pitched a tone lower (in E flat instead of F), and it uses trumpet fingerings instead of French horn fingerings. As the French horn had been the only brass instrument I had ever made any concerted effort

to learn to play up to this point, this opportunity provided me with the exciting experience of trying something new and outside my comfort zone. It also gave me the chance to practice my self-directed learning skills as I was left to my own devices to learn how to play the instrument. I only played with the band for a year as I was granted entry into medical school during the following application cycle and no longer had enough time to attend rehearsals regularly, but I am very grateful for this unique opportunity that I would not have had if my entry into medical school had not been a bit delayed.

Music and medicine have truly played intertwining roles in my life. Though seemingly disparate disciplines, I have used one to develop skills that help the other and they have interacted to make me both a better medical student and musician. Going forward into residency, I hope to retain my strong connections to music.

While I am doubtful that I will have much time to play during a busy McGill orthopaedic surgery residency, I could not have matched to a better city for attending high-quality concerts. The home of an internationally renowned orchestra, an international jazz festival, the House of Jazz (a jazz club mere blocks from my apartment that hosts gigs most nights of the week), and even some very high-caliber buskers, Montreal offers a plethora of concerts in a wide range of styles for anyone in search of some work-life balance. Music and surgery are far more closely connected than some may think. After all, they are both an art.

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Peter Dust is a graduate of the University of Saskatchewan College of Medicine, Class of 2015. He previously earned a Bachelor of Science (Honours) degree in physiology from the University of Saskatchewan and has recently moved to Montreal to complete his residency in orthopaedic surgery at McGill.

As a musician, Peter has performed with over twenty different ensembles ranging in size from small quartets and octets to full orchestras. His main instrument is the French horn, and he has performed professionally with the Prairie Virtuosi Chamber Orchestra. Most recently, he has performed with the Saskatoon Youth Orchestra Reunion Orchestra and the Saskatoon French Horn Choir.

Outside of music and surgery, Peter enjoys playing and watching tennis, travelling, watching Shakespearean plays, and cheering on the Roughriders.

■ THE SOPORIFIC SPONGE

Murray Dease
Staff Anesthesiologist
University of Saskatchewan

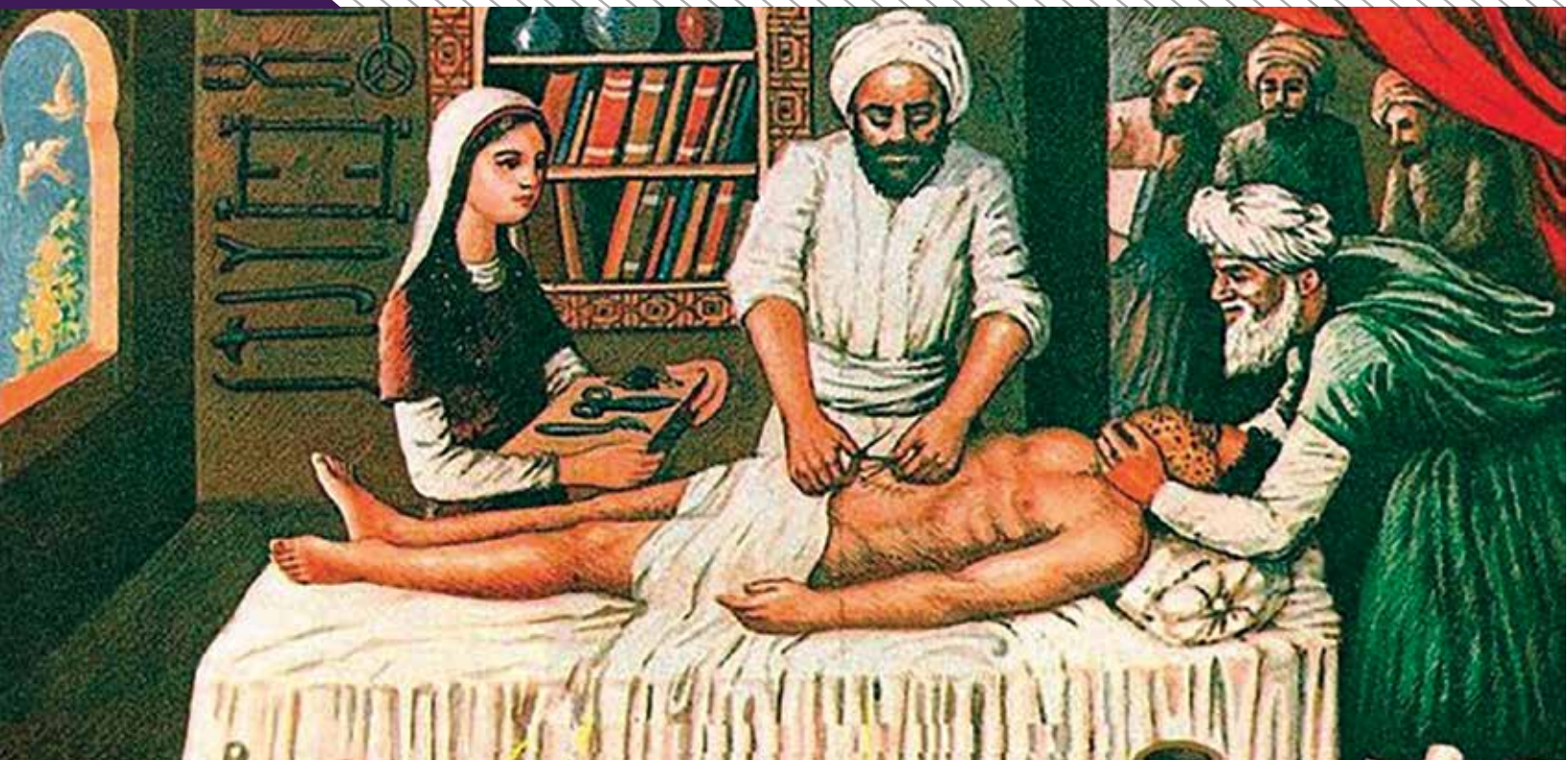
What the hell is that? This is what you might say if you were unlucky enough to encounter the soporific sponge, a primitive anesthesia delivery system used between 600 and 1700 AD¹. In those days you had to be in pretty rough shape to be eligible for surgery, so you might not have enough wits about you to make any observations at all.

Physicians in those days wouldn't operate on anyone unless there was absolutely no option, as the surgeries were extremely painful for the patient and extremely unpleasant for everyone involved. Also, a high percentage of the patients died anyway. So, maybe you were a 10th century soldier living in Bagdad who suffered an open fracture in a battle, or perhaps an 15th century European, suffering from a severe case of what would later be known as diabetes, with a rotting foot. Fortunately (maybe) the constant pain and the effects of sepsis would have numbed your senses considerably and you may have only been vaguely aware of the team of strong men getting ready to hold you down while the surgeon prepared his saw. If your medical team was on the cutting edge (ahem), one of the last things you might remember before the sawing started was a soggy sponge being placed over your nose and mouth, a "soporific" sponge. What would

happen once the sawing started? Would you feel the saw blade slice painfully through your skin and bite into bone, or would the traumatic event pass without you being aware of it? Would you be blissfully unaware of what was happening, or would the sponge induce in you a state of temporary madness almost as bad as the cutting itself?

The short answer to these questions is that we really don't know what being exposed to the soporific sponge was like. So much about it is shrouded in mystery and lost from history. I didn't even know what "soporific" meant before I wrote this. The definition is "tending to induce drowsiness or sleep". One thing I am very sure of, however, is that once you hear more about what anaesthetics were like hundreds of years ago, you will feel very lucky that you are living in 2015.

The soporific sponge was probably invented somewhere in the Islamic empire between the 7th and 11th centuries AD. At this time Arabian medicine and science represented the state of the art and Middle Eastern culture, science and education flourished. The "research and development" divisions of Islamic medicine in the Middle East would continue to lead the world until the Crusades and the Mongol invasion,



among other things, eventually put an end to these good times and slowed scientific progress dramatically. In the 1400's, Christian Europe started waking up from the Dark Ages and an age of discovery began in this region.

Anyway, during the golden years in the Middle East, before the crusaders and Ghengis Khan, a man named Al Razi , or "Rhazes", was one of the world's leading men of science. He may have been the first champion of anesthesia, as it was he who first suggested that "pain relief must be the responsibility of the physician". While this sentiment seems obvious to us today, this was most definitely not the case at the time. In the "ancient world", especially in Christian Europe, there were many factors that kept the physicians of the time from striving to diminish physical suffering. Pain was viewed as an accepted and necessary part of nature, an essential stimulus to keep the patient alive through illness. Some physicians were reluctant to alleviate pain for fear of messing with "God's plan". Also, there may have been a generalized fear of the unconscious state. Nobody knew what happened to the soul when a person entered artificial sleep and some even worried that demon possession or madness might be a consequence of "artificial unconsciousness"^{2,3,4}.

Once philosophical objections to anesthesia were overcome, there were many practical problems that had to be solved before a patient could safely be rendered unconscious. At first glance, this problem doesn't appear to be overly daunting. Numerous intoxicating substances have been available for centuries. Opium, for instance, was apparently used by the ancient Babylonians, who called it the "joy plant"⁵. They obtained the drug from the poppy plant's egg shaped seed pod. They would slit the pod with a special curved poppy knife and then collect the "sap" as it oozed out, eventually bundling into bricks and cakes. The "joy plant" pops up in other places too. Alexander the Great was reported to have given opium to his wounded soldiers and there are also reports of Roman gladiators having access to the euphoria inducing drug. So why couldn't patients just eat or drink opium before surgery? Wouldn't that be a good anesthetic? Well, not really. The problem is that proper titration of these substances was very difficult using the G.I. tract as the route of administration. It was, and is, relatively easy to drink or eat intoxicating substances. It's very difficult, however, to ingest just the right amount so that you are in that sweet spot of being numb to pain at just the right time for just the right duration without overdoing it and encountering apnea or circulatory collapse. It would be very easy

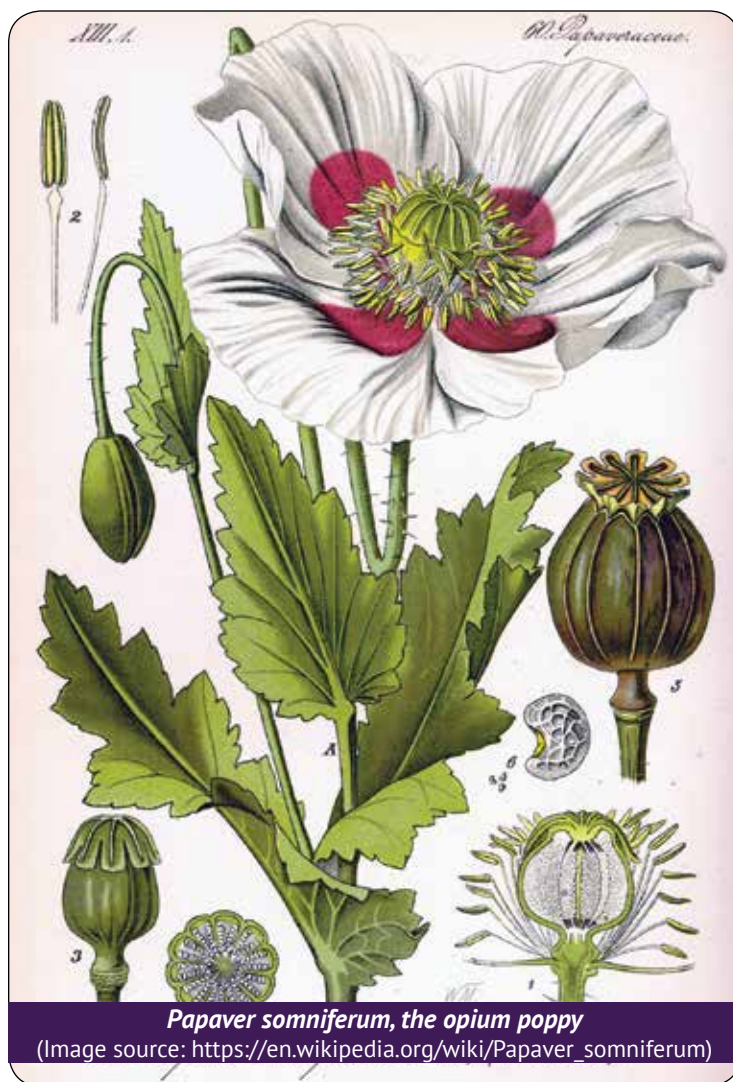
The Soporific Sponge.... by Murray Dease

to take not enough, and get little benefit, or take too much and suffer dangerous effects. The spectre of an overdose has always hung over the opium user. The “sweet spot” of the proper dose was just too close to the dangerous overdose dose!

This relationship between a drug’s ability to provide benefit versus its danger of causing harm is called the therapeutic index⁶. The therapeutic index is the comparison of the amount of an agent that causes a therapeutic effect versus the amount that causes toxicity. A drug with a high therapeutic index is considered safer, as it will deliver its benefits at a dose that might be many thousands of times less than the dose that would produce toxic, or overdose, effects. For opium, and derivatives of it like morphine, the therapeutic index is relatively low, which is bad. If you tried to give a patient enough of an opium like drug to tolerate an operation it is extremely likely that they would stop breathing. Any anesthesiologist will be able to tell you this. It is not uncommon for any one of us to give just a bit too much narcotic to the patient and make them stop breathing. For us in the O.R. there is an easy solution to the problem. We just put the patient back on the ventilator until their brainstem kicks back in. But if you didn’t have the luxury of an open airway and an anesthesia machine, or an anesthesiologist nearby, for that matter, the problem of apnea could become a big one. This is why ingesting opium didn’t solve the problem of anesthesia. Its therapeutic index was too narrow. It was too dangerous.

In order to be able to properly titrate the dose of an anesthetic you need to be able to deliver a relatively consistent dose that works quickly enough for you to judge the effect and make adjustments up or down before you get the patient into trouble. That’s why the G.I. tract wasn’t a very good route of administration. Because it took too long for the swallowed drug to take effect, it was very difficult to fine tune the dosage. Let’s say you took one swallow of an opium tincture and it didn’t take effect for 30 min. If it wasn’t strong enough, you’d have to take another swallow and wait another 30 min for the second dose to kick in. By then, if the first dose was wearing off you might be right back where you started, with not enough drug in your

system to tolerate an operation. On the other hand, if the first dose was still around, or perhaps worse, still hadn’t peaked, when the second dose began to take effect, you might be in danger of overdosing and becoming apneic. That’s why today we generally only use the G.I. tract as a route of administration for long acting drugs.



Papaver somniferum, the opium poppy

(Image source: https://en.wikipedia.org/wiki/Papaver_somniferum)

Rather than eat or drink opium mixtures, what they really should have done back then was smoke the drug in a pipe. Smoking the drug delivers an almost immediate and intense effect that would be fairly short lived. The patient could be given the pipe and titrate the dose themselves, taking frequent “hits” of relatively small doses of the drug whenever they needed it to keep themselves in the “sweet spot” of analgesia without apnea and other adverse effects, like we do with

patient controlled analgesia. But nobody got around to smoking opium until the Chinese started to do it in the late 1500's, which was probably a good thing because the overall effect of smoked opium on the human race was not a positive one⁷. The Chinese got addicted to opium in a big way. By the mid 1600's opium dens were widespread in China and some accounts state that up to 1/3 of the adult population was addicted to the drug. Was smoked opium used as an anesthetic? I'm not sure. I wasn't able to find any instances of this occurring. It might seem unbelievable that medical practitioners would overlook this seemingly obvious application of a recreational drug, but we have seen similar instances through history where this happened, such as the case of nitrous oxide and ether in the 1800's. In any case, it seems that no patients were smoking opium before 1600, the "heyday" of the soporific sponge. So we've established that eating or drinking the anesthetic drugs didn't work very well and nobody thought to smoke them. The intravenous route would have worked, but Dr. Alexander Wood wouldn't get around to inventing the hypodermic needle until 1853⁸, so that wasn't an option either.

It was the physicians of Rhazes' time that came up with the ingenious idea that it might be possible to inhale drugs in a vapour form and have the drugs absorbed through thin walls of the alveoli into the large half a tennis court sized surface area of blood perfusing the lungs. By having patients inhale anesthetic vapours, these physicians were making considerable progress

in addressing the problem of proper dose titration. Inhaling a drug would be similar to smoking it, in that the patient could take small frequent doses, quickly assess the effect of the drug, take more if needed, and more easily titrate themselves into the proper state. The patient might even do this, pardon the pun, unconsciously, as, if they were awake and anxious they would breathe more and absorb more drug and as they became sedated their respiration would slow and they would absorb less. These early physicians were onto something good.



Morton Inhaler Replica

Image source: The Wood Library Museum

So once the Middle Eastern trailblazers decided that the lungs were the best route to unconsciousness, what substances did they use in their efforts to get there? What was in the soporific sponge anyway? Well, the recipes vary in different places and different times, but generally include the well known intoxicant opium as well as the lesser known belladonna, hyoscine, hemlock juice, and mandrake.

One recipe from the 9th century described the preparation of the sponge like this: "take 1 oz opium, 8 ounces of the juice of leaves of mandrake, and 3 ounces each of hemlock green juice and henbane juice. Put everything in water to make a potion. Put potion on a dry sponge from the sea that has never been in fresh water and allow it to dry. When needed, put the sponge in warm water for an hour, then under the nostrils of the patient. He will fall asleep as if it were to steal his spirit. When one wants to wake him up, another sponge soaked in warm vinegar is put under his nostrils"⁹.

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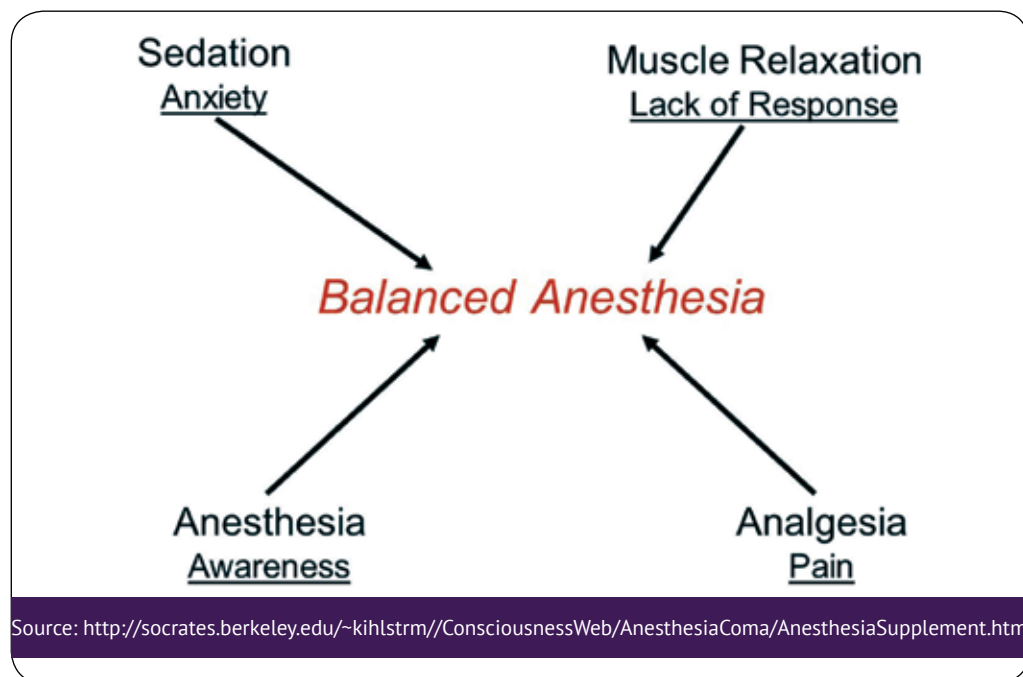
Why this complicated concoction of exotic substances? Why didn't they just use one agent? The answer is that even to this day we have not found one single agent that is an effective and safe general anesthetic all by itself. Modern anesthesiologists subscribe to the principle of "balanced anesthesia", a technique of general anesthesia based on the concept that administration of a mixture of small amounts of several drugs, each ideally suited to meet a particular goal, will combine the advantages, but not the disadvantages, of the individual components of the mixture¹⁰. To put

available agent was strong enough to put someone to sleep by itself. We will return to examine how this strange combination of agents worked later, but right now let's examine the the agents individually.

Opium was sometimes included in the sponge and it was a great drug. Synthetic derivatives of opium, the opioids, are among the most commonly used painkillers even today. They work by binding to the appropriately named opioid receptors in the brain stem and spinal cord. With opium, the early anesthesiologists had the

right drug (or at least one of the right drugs) but just couldn't get the dose or the mechanism of delivery right. With opium, they were trying to pound a nail, and they had a hammer, but they were just as likely to tap the nail or smash everything as they were to nail it properly.

The other substances added to the soporific sponge "soup" were members of the intriguingly named "nightshade" family of plants. The plants all contain high concentrations of something called "tropane alkaloids", which cause hallucinations and psychedelic effects on people



it another way, we don't just pound the patient into oblivion with an elephant dose of one drug. Instead we give smaller doses of several drugs, each tailored to meet one specific goal of an anesthetic. These goals can include loss of consciousness, amnesia, analgesia, and muscle relaxation, all the while trying to preserve physiologic homeostasis. We try to give the patient just the right amount of the drug, not too much or too little, to get them into that "Goldilocks" zone.

Were the Middle Eastern forefathers of anesthesia trying to practice balanced anesthesia as well? Well, probably not. The recipes for the sponge sometimes called for drugs with different mechanisms of action, but this wasn't because they were trying to practice balanced anesthesia. It was usually because no single

when ingested¹¹. I read about these tropane alkaloids but I didn't really understand most of it - something about nitrogen and tropane rings. Anyway, lots of interesting substances are part of this family, including hyoscyamine, henbane, belladonna and mandrake (drugs usually found in the sponge) as well as caffeine, nicotine, ephedrine, cocaine, psilocybin (the "magic" in magic mushrooms) and bufotenine. Bufotenine, if you can believe this, is a psychoactive substance found in the skin and venom of certain toads, such as the Colorado River Toad. Interestingly, the substance is illegal in many states and in 1994 a California teacher was arrested for "holding toad" - for possession of one of these psychoactive amphibians¹²!

These nightshade drugs all had essentially the

same effect and were probably combined because a strong enough effect couldn't be obtained without using a bunch of them. These ingredients caused an anticholinergic effect, which means that they blocked the neurotransmitter acetylcholine in the central and peripheral nervous system. Nowadays we never use anticholinergic drugs to intentionally induce an altered state of consciousness because the state produced is accompanied by numerous adverse effects and is very unpleasant. Excessive blocking of acetylcholine causes an extremely dry mouth, blurred vision, fast heart rate, makes the skin dry and flushed, and raises the body temperature by interfering with sweat gland function¹³.

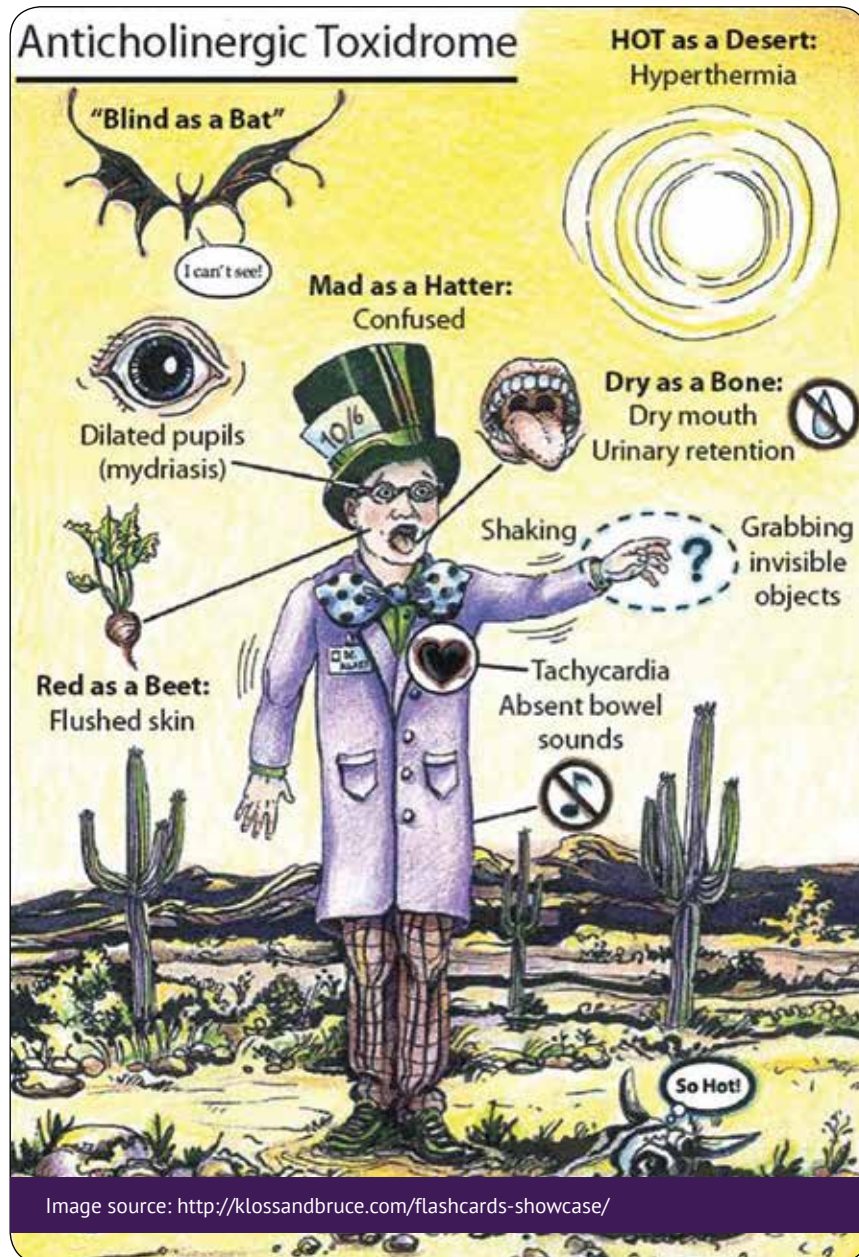
Med students will remember memorizing the symptoms as "blind as a bat, red as a beet, hot as Hades and dry as a bone". The anticholinergic effects on the brain are called the Central Anticholinergic Syndrome and make the patient "mad as a hatter", to round out the mnemonic¹⁴. The syndrome sounds awful and also includes restlessness, hallucinations, and unconsciousness and in severe cases can cause seizures, and coma. Today the only time we encounter this particular altered state of consciousness is when something goes wrong,

most commonly as an adverse effect of medications or after exposure to organophosphates found in insecticides or nerve gases. Two notable cases of mass organophosphate poisoning were the Tokyo sarin gas attacks and the epidemic of Jamaican ginger paralysis. In the first event the poisoning was done on purpose.

Members of a religious cult released the organophosphate nerve gas sarin into the Tokyo subway system in 1995, killing twelve and injuring many others¹⁵. The second incident occurred in the United States in 1930 during prohibition. Apparently, people trying to get drunk resorted to drinking "jake", a patent medicine containing 80% alcohol. Unfortunately, the "medicine" also contained organophosphates and over 30,000 Americans suffered very severe anticholinergic induced symptoms¹⁶.

There is much more in the history of the nightshade plant than accidental poisonings and attempted anesthetics, however.

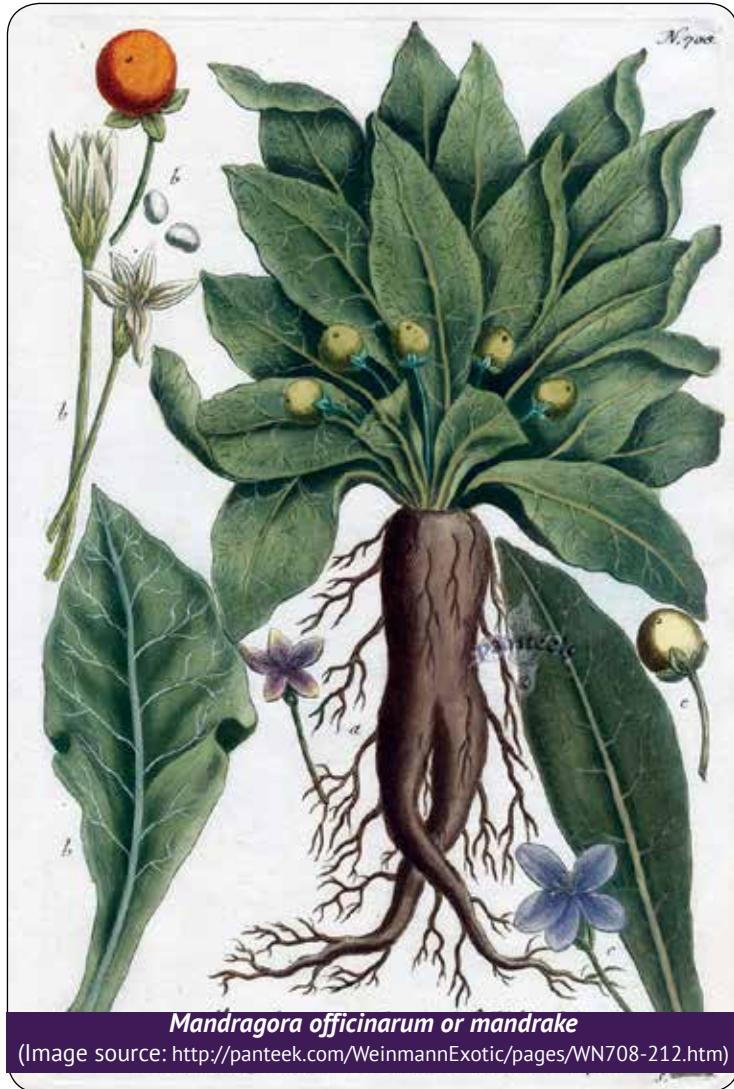
The nightshades have a long history of association with sorcery, witchcraft and superstition. The effects of ingestion of nightshades was thought to sedate the externally oriented consciousness so that humans could be opened up to the supernatural in a trance state. The Oracle of Delphi probably used the smoke



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from burning the seeds of the nightshade henbane to reach an intoxicated state where she was supposedly able to channel the Greek god Apollo and make prophecies¹⁷.

Mandrake, another nightshade, the so called “queen of the magical plants”, has probably the most rich and exotic mythology surrounding it. It was first mentioned



as long ago as 16th century BC. There are pictures of what is thought to be mandrake root in Egyptian tombs. The roots of the mandrake plant somewhat resemble the lower half of the human body, and this coincidence probably contributed to the fascination with the plant. There are numerous legends relating to harvesting the plant. These will be somewhat familiar to anyone who has watched or read Harry Potter. In

“The Chamber of Secrets”, Harry and his classmates are repotting Mandrake plants and they are cautioned to wear earmuffs as the screams the plant makes when uprooted could kill them¹⁷. In the 3rd century BC collectors of mandrake root would draw circles around the plant, cut off the top only while facing west, and perform elaborate rituals before collecting the remainder of the root. Later collectors of the root who were perhaps more resourceful but less patient or ethical would tie a black dog to the root and then urge the dog away, pulling out the root. According to belief, the unfortunate mutt would subsequently die¹⁸.

Mandrake root also makes appearances in the Bible in the story of Jacob, Leah, and Rachel, where Leah gives her sister some mandrake root in exchange for the privilege of spending the night with Rachel's husband Jacob¹⁹. Another Biblical connection is found in a theory that the second offering of wine given to Jesus on the cross may have been laced with mandrake, as mandrake was apparently commonly given to criminals before execution in those times²⁰.

Nightshades also found military application. Hannibal, the 2nd century military commander often considered the greatest military strategist in history, used it against his enemies. He would retreat in battle and leave mandrake-laced wine behind for his enemies to drink. Once Hannibal's enemies became incapacitated by the wine, Hannibal's men returned and killed them²¹.

Shakespeare also found a place for mandrake in his plays. The sleeping potion that Juliette takes to make herself appears dead was laced with mandrake²².

The nightshade henbane was at one time brewed into beer until the practice was prohibited by the Bavarian Purity Law of 1516. Because of the anticholinergic effects, henbane beer apparently made you more thirsty as you drank it²³!

Belladonna, or “deadly nightshade”, was another ingredient sometimes included in the soporific sponge mix. Like the others, it can also induce anticholinergic effects and is still used today to produce the drug atropine, which anesthesiologists use to raise the

heart rate or decrease mouth secretions. Italian women would use the sap of the plant to dilate their pupils to give them a “dreamy intoxicated” look that was thought to be very beautiful. This is where the name *Belladonna*, or beautiful lady, comes from²⁴.



But that’s enough mythology. Let’s get back to the soporific sponge. As we’ve seen, in the case of the opium they put in the sponge, early anesthesiologists had an appropriate drug but just couldn’t deliver it properly. In the case of the nightshades, however, they really had the wrong drug. To go back to our hammer and nail analogy, they were trying to pound the nail in with a screwdriver, which didn’t work very well. But if you hit a nail hard enough with a screwdriver, you can pound the nail in, it just won’t be pretty. And that is how it went with the nightshades. Early anesthesia providers were intentionally trying to cause

anticholinergic “overdose” in their patients through the use of nightshade plants, reasoning that anything was better than being awake for surgery, including the horrible state of temporary madness that is central anticholinergic syndrome. Once again I am reminded how lucky we are to live in the modern world.

But did the damn thing work? Well in spite of how interesting the idea of the sponge is, it probably didn’t work. In 1927 a scientist in Geneva named Marguerite Baur made a soporific sponge by following the ancient recipes closely. She then (appropriately) experimented on guinea pigs. She concluded, unfortunately, that “in no animal have I observed narcosis or even drowsiness. The soporific sponge could not have produced in man a sleep so profound that they could have been used as general anesthetics in surgical operations. We must consider these essays of medieval anesthesia by inhalation to be a legend. The goal was only reached several centuries later.”

In 1989 the same experiment was repeated and a similar conclusion was reached: “Aside from the slight sedating effect observed in three of the five rats,” the experimenters Infusino, O’Neill and Calmes stated, “the results of this preliminary experiment do seem to confirm those of Baur.”^{25,26}

Upon further reflection, perhaps this disappointing conclusion isn’t really very surprising. After all, most medieval illustrations of surgery show the patient writhing in agony. It’s also unlikely that very much vapour could be absorbed by the patient. Scopolamine (a contemporary anticholinergic) and atropine have very low vapour pressures, so not much of the active drug would be released, and considerable amounts of room air would also be mixed in, so concentrations of the drug would be very low. Interestingly, although there are quite a few historical records of soporific sponge recipes, there aren’t really any first hand descriptions of the sponge being successfully used to induce anesthesia. It is also suspicious that many recipes mention waking the patient up by making them sniff vinegar. Obviously any anesthetic that can be overcome by the smell of a common household cooking ingredient can’t be very strong.

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Well, that brings us almost to the end of our story. If you are like me, you might be asking yourself why I wrote this. If the thing didn't really work, who cares about it? Why am I wasting your time? Well, I reflected on this quite a bit and I think the saga of the soporific sponge is well worth our time.

First, I found most of this stuff pretty interesting. I hope you did too. Amusement is a worthy goal. But there is more.

Second, I think it is valuable for us to see how something as marvelous as anesthesia developed over the centuries. The development of anesthesia is often ranked as one of the most important human accomplishments of all time²⁷.

More generally, I think there is a lot to learn from the soporific sponge story even if you aren't interested in anesthesia at all. By learning about beliefs that seem silly to us today, such as the idea that harvesting a mandrake could kill you, or that breathing smoke from a henbane seed can allow predictions of the future, or that surgery without pain would kill the patient, we can learn that the fact that people believe something, no matter how many people or how strongly they believe it, often has little to do with whether or not it is true. This makes me wonder which of our beliefs will be the subject of ridicule in a hundred years.

By learning about the sponge, we can learn about science and the scientific method, which has given us so much. The Oxford English Dictionary defines the scientific method as "a method or procedure consisting of systematic observation, measurement, and experiment, and the formulation, testing, and modification of hypotheses." This means that we make predictions about how the world is, based on our beliefs and preconceived notions, and then investigate the world and see if the results of our investigations are consistent with our beliefs. If not, then we can do more investigations and experiments, but eventually, if the evidence that runs contrary to our beliefs appears irrefutable, then the scientific method dictates that we must question our beliefs and reevaluate how we see the world. The process is responsible for all the wonderful technology we enjoy every day.

But this process is not easy. History shows us that human beings are often very reluctant to change their beliefs and it has often taken great courage on behalf of the discoverers to present their findings to the world. We need only look at the turmoil caused when Eratosthenes discovered that the earth is not flat, when Copernicus discovered that the sun did not revolve around the earth, and when Darwin presented his theory of evolution through natural selection, to see that this is true. Unbelievably, there are still people who question these theories today, after hundreds of years and mountains of evidence. People are often slow to change. But change still happens. Even in our own short lifetimes we have seen some evolution of thought, with changing attitudes with respect to women, homosexuals and visible minorities. In the future we might face radical challenges to our traditional ways of interpreting the world, as quantum physics and relativity theory challenge our "common sense" about things as fundamental as the nature of reality.

Finally, I think it is very valuable for us to reflect on how good we have it. The contemporary Canadian might be getting spoiled. I am sometimes struck by the expectations of some patients who seem to think that having to wait for their surgery, or having any pain associated with their surgery is unacceptable. Compared to what people had to endure a few hundred years ago, when even a minor surgical or dental procedure would be a horrible ordeal, it's incredible how our expectations have changed. I'm not immune to this either. Like most people, I take many things for granted and therefore don't really appreciate them. I often expect things to go a certain, smooth way and when they don't, it annoys me. When events don't live up to my expectations it makes me unhappy. Maybe by reading about how fortunate we are can help us reevaluate our expectations so that we can feel grateful when things go well, instead of just feeling angry when they don't.

Thanks for reading.

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About **Murray Dease** (in his own words):

"I grew up in Hudson Bay, Saskatchewan. My parents ran a logging company. There wasn't much to do in Hudson Bay in the 70's. I wasn't very good at hockey and I was too young to drink, so I developed a love of reading and writing.

When I finished high school, I didn't really know what to do so I majored in philosophy and considered a career in journalism but somehow I ended up in medical school. When I finished medical school, I didn't really know what to do, so I went into family medicine. Six years later I was working as a rural GP and hated my job, so I quit and became an anesthesiologist. I'm good now.

I live in Saskatoon with my awesome wife and two great kids."

Oslerium

*Every issue of
"Surgical Humanities"
carries an excerpt
from the works of the
pre-eminent Canadian
physician
Sir William Osler
(1849-1919).*

The life of William Osler in itself provides a fundamental justification for an education and engagement in the surgical humanities. Osler's medical textbook, "Principles and Practice of Medicine" (first published 1892) widely used as a standard and acclaimed though it was during his lifetime, has largely been forgotten, or remembered only in relation to his other achievements. But in the other great body of his work - his speeches, his essays and his commentaries on the profession, on the business of daily living, on professionalism, on our profession's imperative for humane practice and on the wisdom of our forbears - he has achieved immortality.

Osler's father the Rev. Featherstone Osler was a missionary sent from Cornwall, England, to the backwoods of Ontario. William Osler was born in Bond Head, Upper Canada (now Ontario) to Featherstone and Ellen Osler on the 12th of July, 1849. This was a remote town in an already remote country at the time, and Osler was sent for his schooling to Trinity College School, an independent school for boys in Port Hope, Ontario.

*Sir William Osler at the bedside
Baltimore Period (1889-1905)*

SOURCE: Osler Library of the History of Medicine, McGill University, Montreal, QC

■ About

SIR WILLIAM OSLER

In the fall of 1868, Osler enrolled in the Toronto School of Medicine, but soon transferred to McGill, because it had better clinical opportunities. He graduated from the McGill University School of Medicine in 1872 and taking advantage of an older brother's generosity, Osler spent the next two years studying in Europe and visiting the great clinics and hospitals of Berlin, Vienna and London.

Upon his return to Canada, he was appointed to the faculty of McGill University and spent the next five years teaching physiology and pathology in the winter term and clinical medicine in the summer.

In 1884, Osler was appointed to the staff of the University of Pennsylvania as Professor of clinical medicine and this was the start of a 21 year period of work and achievement in the United States. His appointment to the founding professorship and staff of the new John Hopkins Medical School in Baltimore in 1888 marked the beginning of a very fruitful association with the "Big Four" - the pathologist William Welch, surgeon

William Halstead, gynecologist Howard Kelly (and Osler himself).

Together, the "big four" would introduce far reaching changes in medical education that are still felt today - the clinical clerkship for medical students and the residency system of training were both products of this association. About this time, Osler also began a series of brilliant speeches and addresses whose impact would be felt far beyond the audiences for whom they were intended. The "Principles and Practice of Medicine," a monumental treatise, was published in 1892.

William Osler and Grace Revere were married in 1892. Their only child, Revere Osler was killed in action in Belgium during one of the many disastrous and ill-fated campaigns of the first world war.

In 1905, Osler was offered the prestigious Regius professorship of Medicine in Oxford, England, and the Oslers made the last move of their eventful lives, across the Atlantic, once more, to England. Another distinguished period of

William's career followed - he was knighted and continued to write and deliver memorable addresses to distinguished audiences and societies.

Sir William Osler died of pneumonia in 1919, a complication of the influenza pandemic of 1918-1920.

Harvey Cushing, the pioneer neurosurgeon and Osler's biographer called him, "one of the most greatly beloved physicians of all time."

Sources:

"Osler - A Life in Medicine" by Michael Bliss. Hardcover, by University of Toronto Press, 1999. Also available for Kindle.

Note: Sir William's brother, Edmund Osler (who was a railway baron) has a living connection with Saskatchewan - the town of Osler (about 20 min North of Saskatoon) is named for him; and there is an "Osler Street" close to the Royal University Hospital.

In 1905, the University of Oxford offered Osler the prestigious appointment of “Regius Professor of Medicine.” After a short period of consideration (Harvard University had also offered him a job), and largely at the urgings of his wife, Osler accepted the offer and then began a farewell tour of North America.

Although this speech – given to Canadian and American medical students and faculty at McGill University in 1905 – was titled, “The Student Life,” Osler included all medical professionals in all stages of their careers in his speech. Again and again, and in numerous essays, speeches and letters, Osler points out that no matter what stage of seniority a physician reaches in his/her career, he/she continues to be a student.

Thus, our modern, narrow definition of a student in our profession being defined as an undergraduate medical or nursing student, was alien to Osler’s thinking. He points out in this speech that consultant staff are to regard themselves as “senior students,” whose duty it is to help their juniors.

F.C.



"The true student is a citizen of the world, the allegiance of whose soul, at any rate, is too precious to be restricted to a single country."

Sir William Osler

THE STUDENT LIFE

Sir William Osler

Except it be a lover, no one is more interesting as an object of study than a student. Shakespeare might have made him a fourth in his immortal group. The lunatic with his fixed idea, the poet with his fine frenzy, the lover with his frantic idolatry, and the student aflame with the desire for knowledge are of "imagination all compact."

While the resultant of two moulding forces, the accidental, external conditions, and the hidden germinal energies, which produce in each one of us national, family, and individual traits, the true student possesses in some measure a divine spark which sets at naught their laws. Like the Snark, he defies definition, but there are three unmistakable signs by which you may recognize the genuine article from a Boojum – an absorbing desire to know the truth, an unswerving steadfastness in its pursuit, and an open, honest heart, free from suspicion, guile, and jealousy.

At the outset do not be worried about this big question – Truth. It is

a very simple matter if each one of you starts with the desire to get as much as possible. No human being is constituted to know the truth, the whole truth, and nothing but the truth; and even the best of men must be content with fragments, with partial glimpses, never the full fruition. In this unsatisfied quest the attitude of mind, the desire, the thirst – a thirst that from the soul must rise! – the fervent longing, are the be-all and the end-all. What is the student but a lover courting a fickle mistress who ever eludes his grasp?

In this very elusiveness is brought out his second great characteristic – steadfastness of purpose. Unless from the start the limitations incident to our frail human faculties are frankly accepted, nothing but disappointment awaits you. The truth is the best you can get with your best endeavour, the best that the best men accept – with this you must learn to be satisfied, retaining at the same time with due humility an earnest desire for an ever larger portion. Only by keeping the mind plastic and receptive does the

student escape perdition. It is not, as Charles Lamb remarks, that some people do not know what to do with truth when it is offered to them, but the tragic fate is to reach, after years of patient search, a condition of mind-blindness in which the truth is not recognized, though it stares you in the face. This can never happen to a man who has followed step by step the growth of a truth, and who knows the painful phases of its evolution. It is one of the great tragedies of life that every truth has to struggle to acceptance against honest but mind-blind students. Harvey knew his contemporaries well, and for twelve successive years demonstrated the circulation of the blood before daring to publish the facts on which the truth was based. Only steadfastness of purpose and humility enable the student to shift his position to meet the new conditions in which new truths are born, or old ones modified beyond recognition.

And, thirdly, the honest heart will keep him in touch with his fellow students, and furnish that sense

The Student Life..... by Sir William Osler

of comradeship without which he travels an arid waste alone. I say advisedly an honest heart – the honest head is prone to be cold and stern, given to judgment, not mercy, and not always able to entertain that true charity which, while it thinketh no evil, is anxious to put the best possible interpretation upon the motives of a fellow worker. It will foster, too, an attitude of generous, friendly rivalry untinged by the green peril, jealousy, that is the best preventive of the growth of a bastard scientific spirit, loving seclusion and working in a lock-and-key laboratory, as timorous of light as is a thief.

You have all become brothers in a great society, not apprentices, since that implies a master, and nothing should be further from the attitude of the teacher than much that is meant in that word, used though it be in another sense, particularly by our French brethren in a most delightful way, signifying a bond of intellectual filiation. A fraternal attitude is not easy to cultivate – the chasm between the chair and the bench is difficult to bridge. Two things have helped to put up a cantilever across the gulf. The successful teacher is no longer on a height, pumping knowledge at high pressure into passive

receptacles. The new methods have changed all this. He is no longer Sir Oracle, perhaps unconsciously by his very manner antagonizing minds to whose level he cannot possibly descend, but he is a senior student anxious to help his juniors. When a simple, earnest spirit animates a college, there is no

the education upon which he is engaged is not a college course, not a medical course, but a life course, for which the work of a few years under teachers is but a preparation. Whether you will falter and fail in the race or whether you will be faithful to the end depends on the training before the start, and on your staying powers, points upon which I need not enlarge. You can all become good students, a few may become great students, and now and again one of you will be found who does easily and well what others cannot do at all, or very badly, which is John Ferriar's excellent definition of a genius.

In the hurry and bustle of a business world, which is the life of this continent, it is not easy to train first-class students. Under present conditions it is hard to get the needful seclusion, on which account it is that our educational market is so full of wayside fruit. I have always been much impressed by the advice of St. Chrysostom: "Depart

from the highway and transplant thyself in some enclosed ground, for it is hard for a tree which stands by the wayside to keep her fruit till it be ripe."

The dilettante is abroad in the land, the man who is always venturing on tasks for which he is imperfectly equipped, a habit of mind fostered by the multiplicity of subjects of the curriculum; and while many



Osler Conducting a Clinic at the Royal Victoria Hospital in Montreal, 1905 Baltimore Period (1889-1905)

SOURCE: Osler Library of the History of Medicine, McGill University, Montreal, QC

appreciable interval between the teacher and the taught – both are in the same class, the one a little more advanced than the other. So animated, the student feels that he has joined a family whose honour is his honour, whose welfare is his own, and whose interests should be his first consideration.

The hardest conviction to get into the mind of a beginner is that

things are studied, few are studied thoroughly. Men will not take time to get to the heart of a matter. After all, concentration is the price the modern student pays for success. Thoroughness is the most difficult habit to acquire, but it is the pearl of great price, worth all the worry and trouble of the search. The dilettante lives an easy, butterfly life, knowing nothing of the toil and labour with which the treasures of knowledge are dug out of the past, or wrung by patient research in the laboratories.

Concentration has its drawbacks. It is possible to become so absorbed in the problem of the "enclitica" or the structure of the flagella of the Trichomonas, or of the toes of the prehistoric horse, that the student loses the sense of proportion in his work, and even wastes a lifetime in researches which are valueless because not in touch with current knowledge. You remember poor Casaubon, in Middlemarch, whose painful scholarship was lost on this account. The best preventive to this is to get denationalized early. The true student is a citizen of the world, the allegiance of whose soul, at any rate, is too precious to be restricted to a single country. The great minds, the great works transcend all limitations of time, of language, and of race, and the scholar can never feel initiated into the company of the elect until he can approach all of life's problems from the cosmopolitan standpoint. I care not in what subject he may work, the full knowledge cannot be reached without drawing on supplies from lands other

than his own— there must be no discrimination by the loyal student, who should willingly draw from any and every source with an open mind and a stern resolve to render unto all their dues. I care not on what stream of knowledge he may embark, follow up its course, and the rivulets that feed it flow from many lands. If the work is to be effective he must keep in touch with scholars in other countries. How often has it happened that years of precious time have been given to a problem already solved or shown to be insoluble, because of the ignorance of what had been done elsewhere.

And it is not only book knowledge and journal knowledge, but a knowledge of men that is needed. The student will, if possible, see the men in other lands. Travel not only widens the vision and gives certainties in place of vague surmises, but the personal contact with foreign workers enables him to appreciate better the failings or successes in his own line of work, perhaps to look with more charitable eyes on the work of some brother whose limitations and opportunities have been more restricted than his own. Or, in contact with a mastermind, he may take fire, and the glow of the enthusiasm may be the inspiration of his life.

Concentration must then be associated with large views on the relation of the problem, and a knowledge of its status elsewhere; otherwise it may land him in the slough of a specialism so narrow

that it has depth and no breadth, or he may be led to make what he believes to be important discoveries, but which have long been current coin in other lands. It is sad to think that the day of the great polymathic student is at an end; that we may, perhaps, never again see a Scaliger, a Haller, or a Humboldt — men who took the whole field of knowledge for their domain and viewed it as from a pinnacle. And yet a great specializing generalist may arise, who can tell? Some twentieth-century Aristotle may be now tugging at his bottle, as little dreaming as are his parents or his friends of a conquest of the mind, beside which the wonderful victories of the Stagirite will look pale. The value of a really great student to the country is equal to half a dozen grain elevators or a new transcontinental railway. He is a commodity singularly fickle and variable, and not to be grown to order. So far as his advent is concerned there is no telling when or where he may arise.

The conditions seem to be present even under the most unlikely externals. Some of the greatest students this country has produced have come from small villages and country places. It is impossible to predict from a study of the environment, which a "strong propensity of nature," to quote Milton's phrase again, will easily bend or break.

Part 2 of this address will be continued in the next issue of this journal...

Poetry Corner

Francis Christian is a poet and a surgeon. His first book of poems was published in 2002. His poems have also appeared in magazines.

There are enough of his poems now, he believes, for another book.

He is a staff surgeon in the Saskatoon Health Region and University of Saskatchewan.

The Homeless Child, Sleeping Rough

"And he passed by on the other side" : Luke 10:31

by Francis Christian

I will not stand unmoved by squirming life and liberty
by mountains losing summits and chain-links
clasping willing arms outstretched.

I will not walk by huddling mass unhindered,
or trample tender fingers trembling, pale,
or step aside on the sweating sidewalk.

Pale fingers poking through the quivering shawl
lifeless, but for flickering eyelids flaying time
and fate and floundering fortune.

Numbed by icy blast of bitter winds
and numberless people passing by,
saving sorrow for tomorrow.

I cannot die the temperate death of feeling
and be afloat like driftwood
on a furious sea.

I dare not wish the nerves stay calm
or that the sails be switched off
in this intimate storm.

But stooping I may find redemption
from my own call to keep walking
past Jesus sleeping wild;
Pause in the midnight of this moment,
feel icy fingers clasping mine,
pulse of my pulse, soul of my very soul.

BRANTA CANADENSIS¹

by Francis Christian

No, no do not go - though
green grasses yellow grow
and field flowers fade;
there is frost now in the shade
and the breezes blow ice.

Think, in going you must make
a thousand miles by day, awake;
sleep in alien fields of stubble
and fly straight again into rumble
of thunder and wintry storm.

And do you really wish to make a “V”
over lands seething with misery?
or trumpet and honk and cackle
when there is whisper and rankle
of gossip and intrigue below?”

“Oh I must go and you will stay
for whether by the sun by day
or the blinding snow by night
I’ll soar into the morning light
without passport or permit or freight.



We do not treasure the things
you do; and on dappled wings
carry only the crisp air
made golden in the glare
of sunbeams that bend our way.

We glide far above human blood
that flows more furious than flood
of rivers we pass peacefully over;
we dare not fly any lower -
or blood may from flesh draw blood.

We dream of love that lasts forever
we live the dream too, and weather
pain and pleasure, flock and brood,
with the same lover who stood
in the tall grass as we first made love.”

It was speaking still, when the shot rang out
a pause, a shriek; and then a shout
of hideous human sounds; a flutter
full of grace, beating wings, and stutter
of cackles fading to silent wrath.

O unfeeling, foolish, stupid man!
O life that takes life because it can!
O bloody shot that just made a widow
flying stunned into the twilight’s glow
and mourning a better life than ours.

1. *Branta Canadensis*,
scientific name for Canada Goose
Image Source: © Gary Kramer

To A Nurse Friend Weeping At The Side Of Her Just Dead, Young Patient

by Francis Christian

Forever it may seem you feel
the fevered brow
burning on cool fingers;
and wish you could not wonder
at wonder being put to sleep
beneath midnight stars
that shine so severally deep
and cold in the misty skies.
Twinkle of knowledge
of not knowing what you know
or feeling of feeling
what you feel -
of being left random alone
in the gentle night
heavy with air of
tonight snuffed out
from light of tomorrow
and the meaning of
meaning turned on its head.

It may seem this sorrow
has seamless resources
to sap the soft touch
of your soul upon
the next fevered brow
or trembling hand.
And the mask of now
may hide the face of tomorrow
from even your gentle eyes.

I don't believe belief
can breathe its broad
store of reasons
of why you must still believe
down your moist neck;
why even its entry
into this grim hall -----
may make you rise and leave.

Not that you have not wrested
from rising vapors of
various "whys" your own
versions of purpose.
Or struggled to seek
in the steaming mists
of burning tears
(yours and hers and theirs)
the source of their flow -
as the pilgrim still seeks
the Ganges at its source.

That the Maker must
make do with cosmic dust;
and bear blood and
bruised body beaten blue
to the shivering hill
and shout out clear
whilst cosmic metal
holds him fast
that it "is finished."
What done? What at an end?
- This order of things
the way things are
the way they must not be
----- all this
must already have meant
something to you.
And so, I will not speak.

REMEMBRANCE DAY 2015

by Francis Christian

Fewer far than the famous names
that speak of severe battles won
with sword and spear and of games
of war played with real shot and gun,
- are the warrior names of Peace
written across the sky in blood
of young men not spilled and lease
of life returned where once death stood.
Deep gashes sewn back tenderly
bleeding hearts their beats returned;
even severed heads replaced gingerly
and invite to death and glory spurned.
Their stars are pinned not on starched shirts,
but soar in the skies and spawn a million births.



ZHIVAGO: The Doctor in Literature

The doctor not only writes poetry, novels, essays and short stories - he or she also lives in them. This column celebrates works of literature that celebrate (or denigrate) a physician and his or her work and times. Its authors will only uncommonly be physicians - it would surely be a fallacious presumption to assume that only a doctor can comment on his or her own life and manners.

The title is from Russian novelist Boris Pasternak's immortal, lyrical novel, "Dr. Zhivago." The film, bearing the same name was directed by David Lean and starred Omar Sharif and Julie Christie.

The Editor

Earlier this year, we were graciously granted permission to serialize the life story and memoir of one of the preeminent surgeons of our time, Professor R.M. Kirk – and the Spring 2015 issue of this Journal carried Chapter 1 of his life story.

Raymond Maurice Kirk ("Jerry" Kirk to his friends) is perhaps best known to most surgeons and surgical trainees throughout the world on account of "Kirk's General Surgical Operations" – the textbook of operative General Surgery that has been the standard in Britain and in many other parts of the English speaking world. Now into its 6th Edition (2013), it is available in both print form and (as some of our residents know) for the iPad as well.

His other books are almost equally well known and Prof. Kirk's elegant, practical and pithy writing style and editorship are widely recognized and admired.

Professor Kirk's career as Consultant academic Surgeon was spent almost continuously at the Royal Free Hospital and Medical School in London. Many innovators and pioneers in medicine and surgery worked in the ferment of intellectual activity that was the Royal Free (including the pioneer hepatologist Sheila Sherlock) and Prof. Kirk made widely recognized contributions to surgery of the stomach and esophagus. During the seven years that he was Editor of the Annals of the Royal College of Surgeons of England, the journal rose even further in standing and ranking among the surgical journals of the world.

The story of how Jerry met Peggy is contained in the "life story" and will appear in due course, in the pages of this journal. Jerry and Peggy live in Hampstead, London, not far from where that other English surgeon John Keats lived and wrote his immortal, "Ode to A Nightingale."

The Editor is deeply grateful to Jerry for the privilege of allowing this Journal to carry serialized excerpts of his life story. And now for a continuation of Jerry's story, Chapter 2, in his own words...

F. C.

LIFE STORY

Excerpts from the memoirs of R. M. Kirk

Radio. Wire transmitted signals using a single wire were developed during the early 19th century improved after 1838 by using the code developed by Samuel Morse (1791-1872). Wireless telegraphy developed during the late 19th century using the same code, encouraged by successful transmission demonstrated by Guglielmo Marconi (1874-1937), a Nobel laureate in 1901. Subsequent developments made wireless telephony practical in the 1920s. The British Broadcasting Corporation had been inaugurated in 1922, the year before my birth. I first heard the 'wireless', picked up on an instrument using a 'crystal and cat's whisker' connected to earphones. Prior to this we the gramophone provided ballads and dance music from grooved shellac records rotated at a mere 78 rpm. The advent of radio receivers powered by accumulators and high voltage batteries opened up radio-broadcasting with all day news coverage and music – usually dance music played by bands such as Henry Hall's, with a signature tune, 'Here's to the next time.' Each generation thereafter has become attached to its own cherished popular music. I am certain that when you hear certain melodies and lyrics they evoke events or periods of your past life. The increasing dominance of America is evident when I recall the titles remembered by me and my contemporaries: 'Happy days and lonely nights' (1928), 'Goodnight sweetheart' (1931) sung by a honey voiced

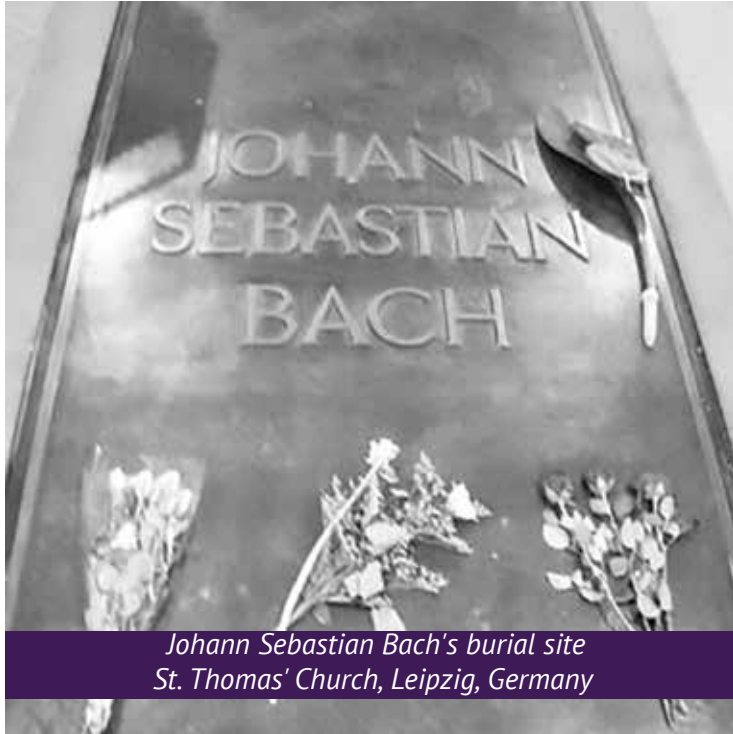
South African, Al Bowlly. We hummed about places of which we were totally ignorant. A particular favourite of mine was 'Home in Pasadena.' I discovered that this suburb of Los Angeles, acquired a name only in 1890 because of the euphonious sound of the Spanish word for valley. Britain's fascination with American 'Musicals' began to overtake us. 'Show Boat' published in 1928 by Oscar Hammerstein to music by Jerome Kern and famously recorded with the bass singer, Paul Robeson, dramatized life styles totally unfamiliar to us of glamorous life on the Mississippi river, colour prejudice and bitterness.

My introduction to classical music was as a member of the school choir. We sang two opera choruses at the School Speech Day. The rousing Anvil chorus from Verdi's 'Il Trovatore' was followed by the sonorous harmonic progressions of the Pilgrims' chorus from Wagner's 'Tannhauser.' A wealthy friend of my



Richard Wagner (1813-1883)

mother gave us a stack of operatic records including excerpts from Wagner's 'Meistersinger von Nurnberg.' It entranced me and I wished for it to continue. Many years later I was able to identify the addictive magnetic attraction of the harmonies, remaining unresolved while promising to do so – but often deferred to the last chords of Wagner's (L) great music dramas. I had been christened in the Protestant Church and



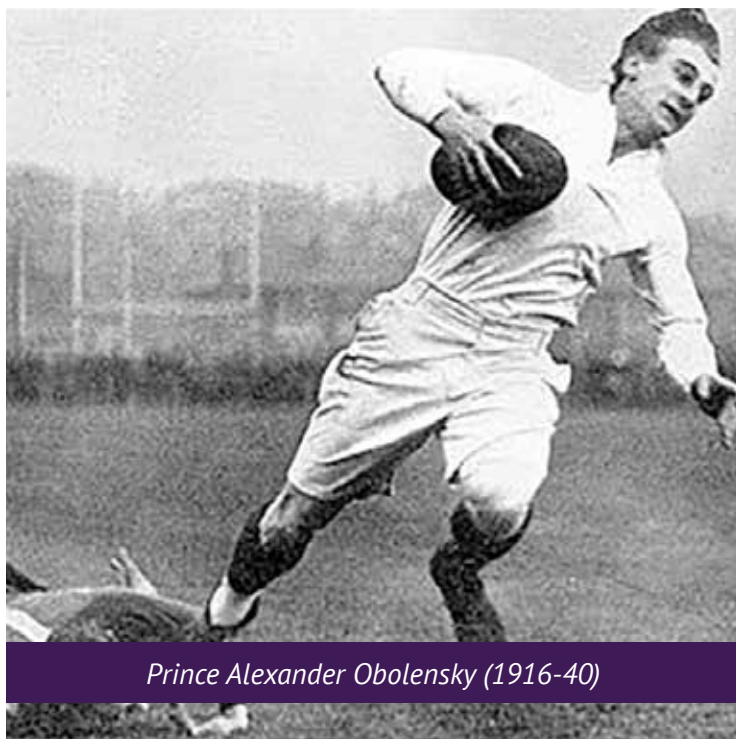
*Johann Sebastian Bach's burial site
St. Thomas' Church, Leipzig, Germany*

was taught to intone the Lord's prayer each night. Morning assemblies at school were always introduced with prayers and hymns chosen by the headmaster. Subsequently I was 'confirmed.' My spiritual beliefs are now agnostic (G a = not + gnostikos = good at knowing; unknown – some would add 'unknowable,' coined by Thomas Henry Huxley in 1869). This has not eroded my growing, intense love for JS Bach's ineffable music. Many years later, while visiting what was then still East Germany, we sat in the nave of St Thomas' church in Leipzig, facing Bach's tomb, listening to the choir singing one of his chorales accompanied by the organ on which he had played. It is remarkable that some music exerts an emotional influence on us that we cannot explain. We each have our individual preferences and they are not necessarily static.

Following an examination that would now be called the '11-plus' I received an offer to attend the County school, newly built for £60,000 – then considered to be an exorbitant price. Grammar school education involved extra expense but my mother would have starved to pay for it. Without knowing the statement, she practised the parental advice, 'The only thing you can give your children that cannot be taken from them, is a good education.' What a profound effect school teachers have – not merely as conduits for the transfer of facts but as personalities and sometimes as rôle models. My only disappointment was the mathematics master, a dour, humourless man, seemingly disenchanted with life. He delivered his information by rote, as though reading from an invisible book, without any detectable attached personality or inspiration. I struggled and asked why we were learning the binomial and quadratic equations. He dismissed me curtly with, 'You'll find out later.' I never did. The resultant loss of confidence in applying mathematics to relevant problems had a profound effect on me. Remarkably, as I shall recount, it may later have affected my chances of surviving the war.

As a form of snobbery, we thought ourselves superior in playing rugby instead of soccer. Our Welsh sports coach was whispered to have been an international player. Sadly, he never instructed me in the required tactics or transmitted any skills. When I received a pass I did not know whether I should run with it, pass it on, kick it or drop it? While deciding I would be brought down into the mud and crushed under several bodies or studded boots. I never acquired the required skills. Too late, I gained a glimpse of what I had missed. As we reached the end of our schooldays, the coach took us to Leicester where the local team – the Tigers, played the Harlequins. One of the players was the legendary Russian Prince Alexander Obolensky (1916-40), who acquired the sobriquet 'the Flying Prince' as a wing/three-quarter. He became a naturalized Briton and scored the claimed best ever try for England against New Zealand in 1936. He had successfully run three quarters of the length of the pitch. It was the first time England had beaten the All Blacks! I should not have been surprised to have read, 'and the last.' So that was how it was done! Why had I not been told? He joined

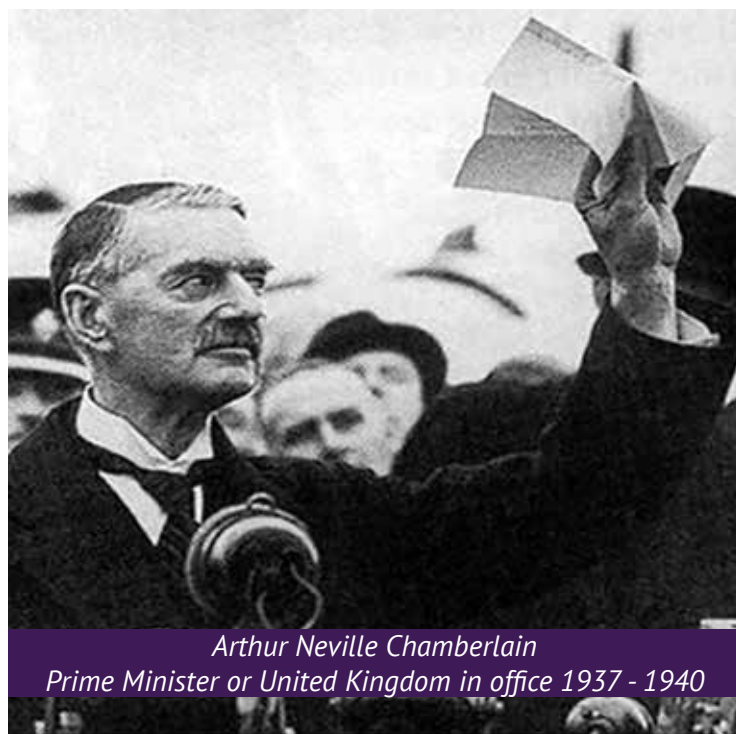
the Royal Air Force and was training to fly a Hawker Hurricane fighter plane in Suffolk in 1940 but crashed and died, aged only 24.



Prince Alexander Obolensky (1916-40)

We were aware of the threats of war, starting when Germany re-militarized the Rhinelands. At the end of the First World War France had insisted on Germany removing all weapons from the Rhinelands – the area to the east of the river Rhine, abutting France. This was forbidden by the victorious Allies in the Versailles Agreement following the First World War. This treaty has since been condemned as being an initiation factor in the subsequent international activities. Germany was forced to accept responsibility for all the loss and damage during the 1914-18 World War but in 1936 they abrogated the terms of the treaty. The unfamiliar word *anschluss* (Ger = union) as the Germans occupied Austria in 1938 appeared, then Czechoslovakia was annexed. This latest incursion generated much apprehension. The Prime Minister, Neville Chamberlain flew to Munich and returned claiming to have averted war. The view of him holding up a sheet of paper and intoning the words, 'Peace in our time,' is engraved on the memories of my generation. The accepted reaction is now to sneer. I do not remember us sneering in 1938. Whether Chamberlain was gullible or not, he purchased a few months for us to prepare for the war

that loomed. Germany might well have swept through France and Britain in 1938 since we were unprepared, still staggering from the calamitous First World War a mere 21 years earlier and the Great Depression following the 1929 Stock Market crash. Unemployment was still high and workers were paid as little as £1.50 per week. That equates to £79 per week now, for a whole family. The threat of war brought the prospect of aerial bombardment with consequent damage to houses and their services resulted in a governmental



*Arthur Neville Chamberlain
Prime Minister of United Kingdom in office 1937 - 1940*

order in 1938 making it obligatory for every house to be fitted with a water stop valve to allow damaged, leaking pipes to be shut off. A plumber, (worker in lead L = plumbum), came to fit a stopcock into the lead supply pipe using a soldered joint 'wiped' into a smooth bulge with a moleskin. I watched him with admiration as he set out his tools, checked the existing pipes, cut the lead pipe without flooding the kitchen, inserted the valve into the defect he created, heated and applied the solder to just the correct state of softness to allow it to be shaped. It was the first time I recognized my admiration for skilled workmanship.

Years later, when I was an impoverished medical student I could not resist buying coffee from Cawardines, an up-market shop on Southampton Row, even though it

was slightly more expensive. As you gave your order, the counterman drew down a balance, placing the appropriate counterweight into one side, and a sheet of brown paper followed by one of grease-proof paper into the other - all performed with silent, lightening speed. He then drew and tilted the correct container to pour in a pyramid of coffee to just even the balance, before returning the container. Now, he slid off the coffee carrying sheets, and with a few deft movements he created a perfect square packet, tied with fine red thread, knotted and cut. He applied a neat sealing wax seal to the knot and handed over the packet. My coffee tasted better for the brilliant performance of the packager.

First encounter with Jewish refugee. One day our headmaster brought in a boy of our age, briefly explaining that he was Jewish from Germany and asking us to treat him with kindness. In our ignorance we expected someone who would look different from us. We asked nothing about him, nor did he explain his background. Because he appeared, spoke, behaved like the rest of us and was instantly likeable, he was absorbed into our community without a ripple. Would we be so tolerant had he appeared different from us? I doubt it. Sadly, humans who look, appear, speak, behave different from us are not accepted so readily. We need to accept the universal truth that all humans are essentially similar and should be treated equally. It was not formally recognized until the Universal Declaration of Human Rights was signed on the 10th December 1948. The start of my personal absorption of the lessons escaped me at the time but accumulated during the remainder of my life.¹

End of school examinations. Three weeks before the terminal School Certificate examinations, the headmaster called me to his study to announce that I was entered for an insufficient number of subjects. He there-upon ordered me to add history and geography. On both subjects I was almost totally ignorant. It forced me to immerse myself in them while neglecting my main subjects. Nevertheless it was pleasing to pass in both of them. The true significance was revealed years later, since there were sufficient passes and distinctions to qualify for 'matriculation exemption' (L matricula =

a register of qualification to enrol in a university). It would prove to be one of the serendipitous experiences, although at the time, I would not have recognized the meaning of word.



Bank

I left school in 1939 just around the outbreak of war. University was well beyond the financial capability of my parents. The headmaster had recommended me as a junior clerk to a bank situated in the Old Market Square of Nottingham, just off the right edge of the picture of the Council House. The market had moved out on completion of the new council house in 1929, topped with a dome containing the bells, the hour one being named 'Little John,' in contrast to 'Big Ben' in London's Parliament clock tower, a tribute to the lieutenant of Robin Hood's leader of his 'Merry Men.' Some of the male clerks had been recruited into the armed services and I was given charge of the deposit accounts. Each night the 'books' had to be checked and balanced. Even a trivial penny difference had to be traced and we stayed as late as necessary. Beyond a certain hour we were given a two shilling dinner allowance. I earned 15

shillings a week (there were 20 shillings in a pound). One weekly duty was to accompany the bank porters who carried the cash wages for the Players' cigarette factory in valises chained to themselves, via taxi. I was later sent to a small village branch in Netherfield, to join the single-handed resident manager. He instructed me how to trigger the alarm with my foot, if an armed robber entered the bank. I expressed my distrust in any response. To demonstrate its effectiveness he thereupon pressed the switch. A huge external alarm bell began to clang. Nothing happened. Nonplussed, the manager then showed me the 'back up' device. In a 'holster' fixed near the cashier's leg was a pistol-like handle attached to a cardboard cylinder filled with powder intended to smother a fire, activated through



the attached pistol grip coupled to an explosive ejector. He claimed that the discharged blast of ejected powder into his face would temporarily incapacitate the robber. He demonstrated it by withdrawing it from its holster beneath the desk, handing it to me and then releasing the safety catch. It immediately (spontaneously?) 'fired,' jetting a cloud of white powder straight into the face of the black coated, pinstripe-trousered manager. He resembled one of the popular film Keystone Kops struck in the face with a cream pie, blinking through it. Speechlessly furious, he left to change his suit within

his contiguous house. A few moments later I heard a feminine titter, which became a giggle, then a stifled laugh, then the unstifled, hysterical guffaw of the manager's wife. To my intense relief the amen – 'So be it,' was a baritone chuckle, signalling the manager's return of good humour and my relief.

At the end of the year the branch manager told me that he had been ordered to report on my progress. Since I was learning to type and he could not do so, he told me to write a draft reference but to avoid excessive commendation. The part-time lady clerk encouraged me – indeed, incited me, to ignore the caution and write a eulogy, which I did. The manager read it, delivered his baritone chuckle and asked, 'Are you applying for my job, Kirk?' before signing it without amendment. A few weeks later I was furious to receive a letter from the main branch manager, stating that since the report had been 'fairly satisfactory,' they intended to increase my salary to seventeen shillings and sixpence. Having once more been encouraged by the lady clerk, I complained and was called to meet the regional bank manager. Youthful innocence is vulnerable to patronizing seniors. I was about to receive a lesson. I knocked, was called in, entered, walked to the desk and stood before a huge sitting man, looking like Buddha, framed by a brightly sunlit window. His only response was the slow extension of an enormous hand with fat white fingers resembling giant maggots, at least in retrospect. They had patently not indulged in any manual work beyond signing his name. I shook the hand, waiting for the introductory greeting. Buddha looked at me smilingly – and silent. Total passivity is unnerving. I could not bear the silence. I stammered through my complaint about the niggardly improvement in my remuneration – but could not reveal that I had written the report, and therefore knew its content. I finished. He smiled passively at me. I repeated the complaint once, perhaps even twice. I was now completely unnerved before his bland, smiling, silent gaze. Only then did the bunch of five fat maggots approach me to shake hands – and at last he spoke. I cannot recall the words but the meaning is deeply engraved. It was on the lines of, Kirk, thank you for speaking to me. Do not hesitate to come back to me if you wish to discuss anything further.' As I backed out of the door



I caught a glimpse of the huge head framed with the brightly lit window. Intimidating a vulnerable junior now strikes me as a contemptible act, often excused as 'a bit of harmless fun.' I hope I never exposed any of my junior colleagues to this snide behaviour. The person who is diminished is the perpetrator. Years later I read, or was told, of a way of assuaging humiliation in circumstances when you are at a disadvantage. You have only to imagine your adversary sitting on the lavatory, with trousers or knickers round ankles, as they strain at stool. I have though, found that total failure to respond is occasionally a valuable powerful method of interrupting persistent and repetitive demands.

I was briefly seconded to help another singlehanded manager/clerk in the small local town of Bingham. Each evening the manager of the town railway station brought in a bag with the day's 'takings.' Since the bank was by now closed, he would place the bag in the overnight safe deposit through an external flap on the outside wall of the bank. It was my responsibility to remove this the next morning from the receptacle, ready to be counted and logged in when the station master arrived. One morning, there was no bag. The station master came in, the bank manager turned to me questioningly and I reported that there was no bag.

The station master firmly stated that he had dropped in the bag the previous night. Four eyes swept to me, accusingly. The duet intoned, 'What have you done with the bag?' Throughout my life so far, I had accusations thrown at me, nearly all justifiable. My first encounter with a mistaken one devastated me, because I immediately felt guilty. How do 'con-men' maintain an appearance of innocent calm when challenged? I was banned from entering the area of the till, the manager telephoned the head office, maybe the local police constable polished his truncheon and applied a drop of oil to the lock on his handcuffs. I seemed to stand alone in a fog of criminality. The telephone rang, the manager picked up the receiver, listened, responded, 'Oh, that's alright. See you.' He replaced the receiver, turned, smiled and casually stated, 'Station manager had a problem and forgot to drop in the bag.' All was alright? I seethed with resentment. The station master came in with the bag and gave me a curt nod. I was still years away from invoking the mental picture of straining at stool – but anyway, this scruffy fellow was not an adversary on whom it was worth wasting my ammunition.

1 I was to learn, when I married Peggy, that a friend of hers, evacuated from London to the country at the start of the War, was immediately encircled by the local children who danced round her chanting, 'Who killed Jesus Christ, who killed Jesus Christ?' There were allegations of Jews being questioned about horns growing from their heads and cloven feet. Our acceptance of our first knowing of an encounter with a Jewish boy rested on the recognition that he looked exactly like the rest of us and spoke perfect, accent-less English. He gave no explanations of his past and none of us thought to ask him. He was instantly accepted as a popular member of the class. He must have had tremendous charm and self-confidence. I bitterly regret our failure to learn more about him and his background. We might have helped to spread the apostolic (G. apo=from + stellein=to send; - as a preacher), message that all humans resemble all other humans.

We now heard that some of them were leaving Germany and moving to Britain and the United States of America. I later found out that both Britain and the US were reluctant to accept Jewish refugees except in small numbers. Subsequently

it was claimed that the authorities were not fully aware of the attempt at genocide within Germany. We shall never know. It was often necessary for refugees to have a sponsor here. I surmise that this boy had a member of the family living in Britain who vouched for him, cared for him and arranged for him to learn fluent English. Of course, we later learned that many integrated Jewish people living in Germany foresaw the Nazi party intentions after Adolf Hitler took over from Paul von Hindenburg as Chancellor in 1934. If they were able to do so, they left the country before the onset of what was to be named, the Holocaust (G holo – whole + kaustos – burnt) – the mass killing of Jews and also of others considered to be undesirable. From childhood onward, children are indoctrinated with prejudices (pre-judgments). Having lived through so many racial and religious antagonisms I sadly conclude that once you label another group to be inferior to your group, your moral conception of them is eroded. I recognize that throughout the Jewish Diaspora (G dia = through + speirein = to scatter) they have been resented, although the explanation escapes me. What is really beyond belief is that the Germans, one of the most civilized nations in the world, should indulge in a mad ideology which drove them to unspeakable mass murder on patently ludicrous, illogical 'evidence.' It seems incredible that they should accept the almost infantile ideology of the Teutonic 'Urbarmensch' – Aryan supermen, with all others including the Jews, Slavs (Russians, Poles), Africans, gypsies, homosexuals, mentally or neurologically disabled, as 'Lebensunwertes,' - 'life unworthy, unworthy of life.' What made the ethnic murder reach the depths of depravity was the organized, industrial scale on which it was carried out. At the end of the war, Germans have reverted to the highly civilized people. Labelling them as Nazis is a cop-out; they were not a separate species but ordinary German people – humans like the rest of us. We are herd animals. We are all at risk from irrational swings of behaviour. At the opportune moment, persuasive people arise who exert on us influences that are superhuman or unworthy of us. We must never forget or speciously attempt to accept any of it.

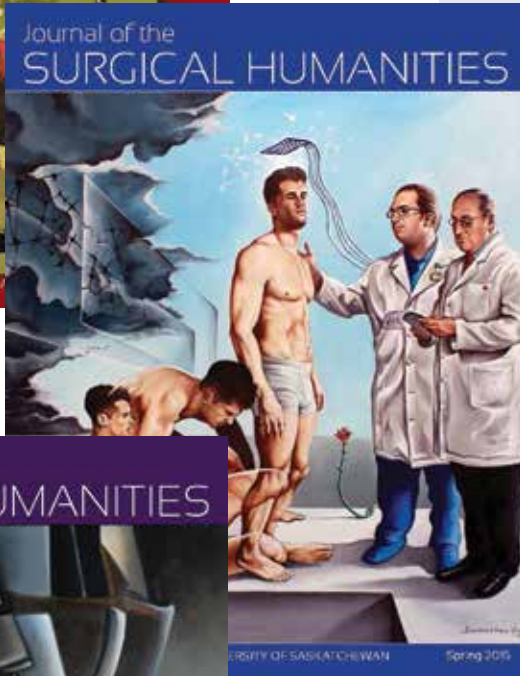
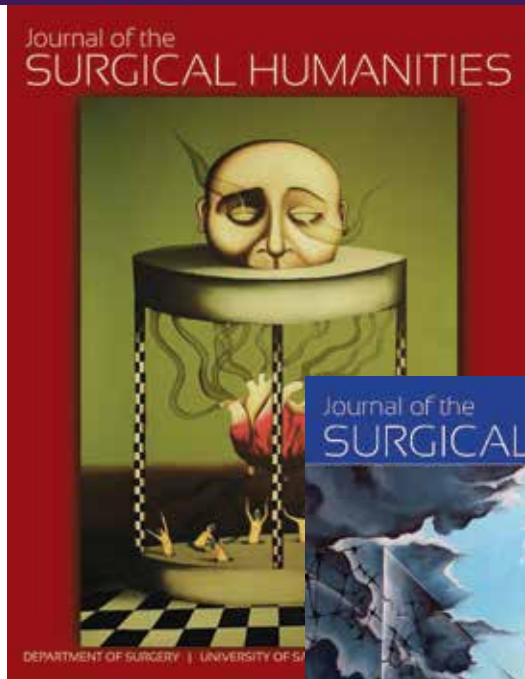
Edmund Burke (1729-97) stated, 'For evil to prevail, all that is necessary is for good men to do nothing.'



Jewish refugees in WW2

Image source: <http://www.theatlantic.com/photo/2011/10/world-war-ii-the-fall-of-nazi-germany/100166/>

Submission Guidelines...



Submissions to the Journal will be accepted in two categories:

- **Written Work:** poetry, essays and historical vignettes.
- **Visual and Musical Work:** submissions in digital reproductions, of paintings, photographs, music and sculpture.

All submissions must be accompanied by a cover letter in Microsoft (MS) Word format, with a short (300 words) biography of the author, name, address and telephone number.

All submissions should be sent in by email to surgical.humanities@usask.ca

If you wish to submit by traditional mail, please address your submission to:

*The Editor,
Surgical Humanities
Department of Surgery
University of Saskatchewan
Saskatoon, SK S7N 0W8*



SUBMISSION GUIDELINES

WRITTEN WORK

- May include poetry, short stories, essays or historical vignettes.
- Submissions must not exceed 5,000 words.
- All email submissions of written work must be in MS Word format, double spaced, 12-point font, with title and page numbers clearly marked.
- The work submitted should not have been published previously.

PAINTING

- Photographic digital reproductions of the painting submitted must be in high definition JPEG or TIFF formats (300 dpi or above).
- 3 photographs must be submitted: the painting as a whole;
- an illustrative inset/detail of the painting; and
- a photograph of the artist at work.
- Each photograph must carry a title - captions are optional. Titles and captions can be submitted in a separate, MS Word document.
- An essay of approximately 1000 words must accompany the submission, in MS Word format, with a description of the painting and its story/meaning, as seen by the artist.

PHOTOGRAPHY

- Up to 4 photographs may be submitted at a time, each of high definition, in JPEG or TIFF formats (300 dpi or higher).
- The photographs may be linked by a similar theme, but this is not essential.
- Each photograph must be titled appropriately - captions are optional; titles and captions may be submitted separately, in MS Word format.
- An essay of approximately 1000 words to accompany the photographs must be submitted separately, in MS Word format. The essay can address the photographs, or be a story of the photographer's life and motivations.

SCULPTURE AND CRAFTWORK

- Photographic digital reproductions of the sculpture or craftwork submitted must be in high definition JPEG or TIFF images (300 dpi or above).
- A total of 4 photographs must be submitted:
- The sculpture/craftwork captured in at least 3 angles, each photograph addressing a different angle
- A photograph of the artist at work.
- Each photograph must carry a title - captions are optional. Titles and captions can be submitted in a separate, MS Word document.
- An essay of approximately 1000 words must accompany the submission, in MS Word format, with a description of the sculpture/craftwork and its story/meaning, as seen by the artist.

PERFORMANCE

- Music may be of any genre, provided the performer recognizes his/her performance as a serious art form.
- Submissions must be accompanied by an essay of approximately 1000 words on the performance itself or on the importance of music in the performer's life. A YouTube link to the performer must be clearly included in the essay.

COMPOSITION

- The composition may be in any genre of music, with the composer's musical score sheet, in musical notation, forming the centrepiece of the submission.
- The musical score sheet need not be in classical music notation - but the reader must be able to reproduce the music by following the score sheet.
- Singer-songwriters can submit their compositions, with the music in musical notation and the words of the song accompanying the notation/chords.
- Submissions must be accompanied by an essay of approximately 1000 words on the composition itself or on the importance of music in the performer's life. A YouTube link to the composition being performed must be clearly included in the essay.

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