

mathNEWS



Constitutional Constipation

Revisited

"Go not to the Elves for counsel, for they will say both no and yes" -Tolkien

Volume 27, Number 2
Friday, October 2, 1981

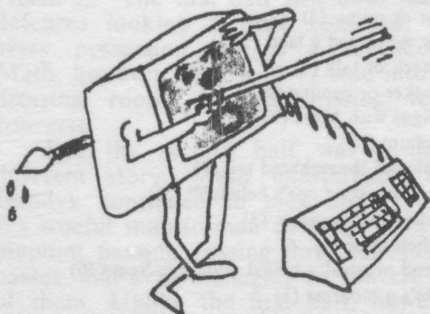
Important Notice

The deadline for dropping fall term courses is October 23, 1981.

Obituary

The Department of Physics' NOVA computer died of old age on or about Tuesday, September 22, 1981.

Alternate computing facilities will hopefully be arranged for students taking Physics courses requiring the use of a computer. (Now if WIDJET would do the same...)



WATSFIC News

The next meeting of the University of Waterloo Science Fiction Club is next Wednesday at 7:30 in MC3009 (probably). Check the WATSFIC office (MC3036) for details. Also, the club has purchased over 70 new books for its collection - these and other books may be borrowed by any member.

A new load of silt has been stirred into the already muddy waters of the constitutional debate, as the Supreme Court of Canada gave its ruling on the legality of the federal government's constitutional proposals. In true Canadian fashion the court said, "Well it depends..." And yet in a way it is fitting that the court gave an ambiguous answer, for the court's opinion is, or at least should be, irrelevant to the debate.

The court ruled 7-2 that it was legal for the federal government to present to the British Parliament amendments to the constitution, without the consent (either unanimous or "substantial") of the provinces. Its arguments were in part based on the assertion that the power to amend the constitution lies with the British Parliament, and that the British Parliament is not limited in this power.

This ruling on legality notwithstanding, the court, breaking new ground, ruled 6-3 that "conventions" exist, which require "substantial" (in another classic Canadian cop-out this word was not defined) support from the provinces for any amendments which would affect the distribution of legislative power. (All justices agreed that the provincial rights were affected by the proposed amendments.) The court, in making this ruling, noted that many important constitutional matters are regulated by convention: e.g. there is no requirement that a government obtaining fewer seats than the opposition resign. However, the ruling made it clear that conventions are not enforceable by the courts.

Naturally, both the federal governments and the provinces have proclaimed victory. In this the provinces may be right in the long run. For though the federal government has obtained the legal right to take its proposals to the British Parliament, the British parliament must still pass them. And as the British government is very heavily based on conventions, it is quite possible, if not probable, that it might refuse to pass the amendments on the basis of the Supreme Court ruling.

Despite the fuss that all participants have made about the rulings, they still strike me as irrelevant. The court has decided what laws, never meant to deal with the present situation, say about the constitution. Even the court, in both its rulings, recognized the idiocy of asking this question. And even the conventions

are only a record of the incessant federal-provincial power struggle. The question at hand is not "What do archaic laws say about the distribution of federal and provincial prerogatives?" nor even "What has the distribution been in the past?". The question is "What should the distribution of federal and provincial powers be?"

This question cannot be answered by the courts, which can only interpret decisions, not make them. And if you trust the federal government (or the provincial governments) to consider the question impartially without regard to their personal interests, you should be locked up for your own protection. The years have taught us the futility of attempting to reach a federal-provincial consensus. No, this is one question that can only be answered by the people directly. In general I am opposed to referenda, but this is an obvious exception.

There are many arguments against a constitutional plebiscite. A majority of those voting, perhaps an overwhelming majority, would not properly understand the question. Large amounts of money, both public and private, would be spent on "educational" (read propaganda) advertising campaigns. The wording of the question is likely to be biased no matter who writes it. And even if such a vote is held, the results are likely to be indecisive showing large regional (read Quebec) disparities. One can be assured that such a process will not bring out the best in Canadian politicians.

However, this is not a perfect world (trite, *incredibly trite*, but nonetheless true). A people judged responsible enough to choose their own government must be judged responsible enough to rule on the constitutional amendments. If they cannot, who can? Philosopher kings are in notoriously short supply.

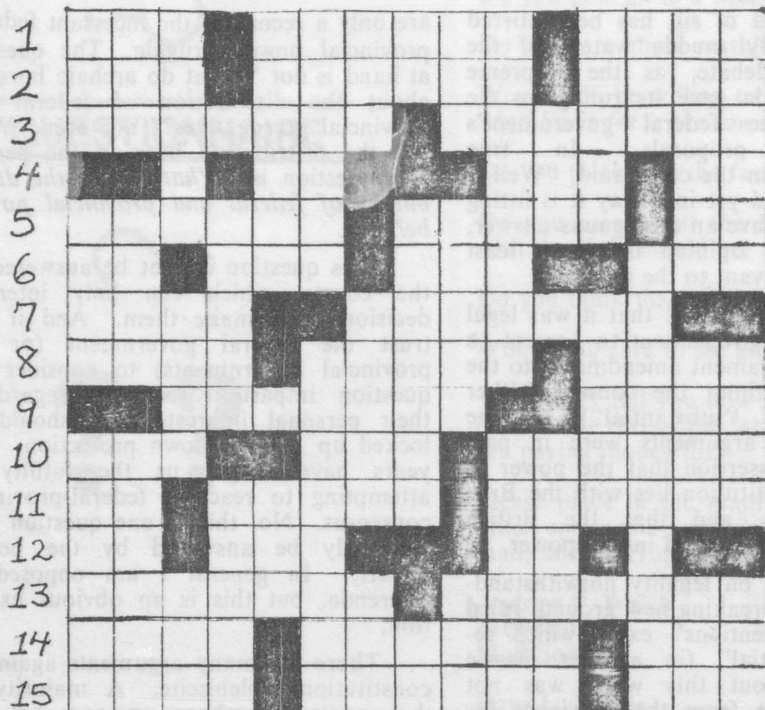
The Supreme Court has given its rulings, but we are still no closer to escaping from the constitutional quagmire. This should not be surprising. The court by its very nature is unable to resolve the problems involved, just as the federal and provincial governments are by their very nature unable to come to an agreement on power sharing. Having the people decide will be a difficult, costly and imperfect procedure. Unfortunately it is the only reasonable way.

William Hughes

Gridword Biz

by David Welbourn

A B C D E F G H I J K L M N O



Meaningless Heading

ACROSS

- 1a Sweet or chip (3)
 1e Cheer for coffee (6)
 1l Journey turned out right (4)
 2a Either a cation or anion (3)
 2e Flawed stone at end of kindergarten (6)
 2l Mr. Bill's cry (2,2)
 3a Can't be reversed (7)
 3i This possession is unlawful evil (7)
 4e Illinois (2)
 4j Rhode Island Transit (3)
 4n Saskatchewan (2)
 5a Ice sin is cutting (6)
 5h John A. told a whale of a story (5)
 5n Old English (2)
 6a Do not pass this train (2)
 6d Streets (3)
 6h Certain newssource (3)
 6m Hill or trap (3)
 7a Eggs left in elongated office (4)
 7g Its pelt was slobbered over (7)
 8a Prince sounds like Mr. Wilco (4)
 8f In within timidness is gleam (5)
 8l Whales in "Lord of the Rings"? (4)
 9c Tie many to be agreeable (7)
 9l "Shocking", Tom said in revolt (4)
 10a Air (comb form) (3)
 10f Anger in g7 (3)
 10j Suite Sainte (5)
 10n Uranium Industries (2)

The **GRIDWORD**
is back!

One of you lucky people
who sends in a **CORRECT**
solution to mathNEWS
before Tuesday will win
a **MATH T-SHIRT!**

- 11a End of an adverb (2)
 11d Ace in railroad is fast competitor (5)
 11j Coal that carries a tune (6)
 12a The people are not amused (2)
 12d Raided at the movie (3)
 12j Railway (2)
 13a Murderer in Sumwat '81 (7)
 13i This lady is a butterfly (7)
 14a Superman in yield point made a cry (4)
 14f Bran companion is within rain (6)
 14m That's a strange lie, Mr. Whitney (3)
 15a Supports mast or waist (4)
 15f Board or cleaning (6)
 15m Small Medium Enlarge (3)

DOWN

- a1 Bald or in your eye (3)
 a5 Assistant in rigorousness (4)
 a10 Summoned Edith in "Blithe Spirit" (6)
 b1 Turn one for a time (3)
 b5 Northern eggs are a blast (4)
 b10 Loophole (6)
 c1 Ant starts a dance over an integrated circuit (5)
 c7 It is what it isn't when it's a door (4)
 c13 International Law Association (3)
 d5 A land in his lamp (5)
 d11 Rough sound from a god and agent (5)
 e1 Eastern go is tabletop theorist of self-interest (6)
 e11 Linkletter's faculty (3)
 f1 City of planes (6)
 f8 Laughing chocolate (8)
 g1 Far or mimi- (3)
 g7 Sir, he turned a land (5)
 g13 Knock or talk (3)
 h1 Looker or coming (2)
 h5 Aligns with Mars (7)
 h14 Iridium (2)
 i1 Color of throughbred tail (3)
 i5 To often state one's beliefs??? (5)
 i13 Telekinetic pressure (3)
 j1 Infinte time (8)
 j10 Head of royalty pulled muscle in Spain (6)
 k3 She's a momma (3)
 k10 To play, as a cat with a mouse (6)
 l1 Fairy or paste (5)
 l7 Philip is one of horses (5)
 m1 Ontario Hospital Nurses (3)
 m6 Bubbly chocolate (4)
 m11 What 11j does (5)
 n1 South in union made harmony (6)
 n8 Eg: Miss Scarlet in the Library with the wrench (4)
 n13 Mel chopped a tree (3)
 o1 Ship Seven or Robin Hood (6)
 o8 Agitate (4)
 o13 Death command is marker (3)

Of Cabbages and Kings

This will be a short column this week, as I have discovered that even though what they pass off as mathematics at this institution bears no resemblance to mathematics as we know it, it still requires a certain amount of time to push symbols around on paper in the manner which my professors demand of me, more so because they seem incapable of developing a consistent style amongst themselves. The faculty has been kind enough to hide tutors in three rooms on the third floor - not on the second floor where most freshmen spend their time, oh, no, that would be too easy for them. (It is because they make ordinary life so impossibly difficult for the average incompetent that they must lower academic standards to ensure that the poor sods do not completely submerge.) I was forced to go to one of these last week, not because I had or shall have even the slightest difficulty with any of the problems that are likely to be assigned for homework this year, but because the professor had stated the first installment of these

problems in such an obscure and confusing manner as to make comprehension of the questions impossible. When I approached one of these so-called tutors for clarification, he proved to be no better, delivering a half-hour lecture on various subjects that, as far as I can see, had nothing at all to do with calculus. I suppose five or six years (or however long it took these wretched creatures to get to fourth year) of this institution would be enough to turn the brains of even the most intrepid soul to something with the consistency and functionality of used crankcase oil, though it was mildly entertaining to watch him wave his hands about and dash to and fro wildly. At any rate, solving all of the several hundred possible interpretations of these questions would take more time and paper than I have available, even at my customary rate of speed, and I cannot reach the professor to ask him what he meant because after each class he is surrounded by a bevy of simpering, large-breasted creatures seemingly intent on earning their passing

grades by some method other than the usual academic means (though what these brazen hussies have in mind may well be the usual academic means in this godforsaken place). And besides, the professor is the original source of the problem, and I cannot very well expect proper clarification in person from someone who no doubt had several weeks to think out their proper expression while laboriously scrawling them on large sheets of newspaper for transcription by some illiterate secretary. So I have resorted to writing up solutions to six or seven of the more likely interpretations of each problem, relying on the probable fact that the marker for the course will doubtless be sufficiently confused by the marking scheme provided him by the professor and disgusted by the general quality of the papers submitted that the marks are very likely to be completely random selections in the 90 to 100 percent range. I shall budget my time more wisely next week, but until then, I must abbreviatedly remain,

E. Siastes

Flag Football Juggernaut in Gear

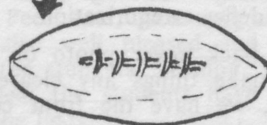
Last Thursday afternoon, the Math flag football team started the season off right with a convincing 33-19 win over North E. The first half saw both teams' defences looking a little confused, and every possession led to a touchdown. Math, however, took a 13-12 lead into the dressing room due to missing fewer converts.

But the second half was a much different story. Math quarterback Roy Dandyk continued to pick apart North E's woeful man-to-man coverage with his pinpoint passing, tossing three touchdown passes, and even managing to convert two of them. Unlike the first half, however, the efforts of the offence were not in vain. For Math's zone defence, under the guidance of yours truly, developed some cohesiveness and virtually shut down North E's attack.

Math's next game will have already happened by the time you read this, so you'll have to read about it next week, assuming that mathNEWS comes out next week.

gvbezoff

This is a FOOTBALL.



It is NOT Butter Pecan Ice cream. It is NOT a 1947 Studebaker. It is NOT a Toronto Argonaut. It is EVEN NOT an all-purpose slicer-dicer from Romco.

I can tell you are not impressed.

Would you believe:

- it is not D'arcy Emery
- it is not Johnsons & Johnsons Baby Shampoo

NO?

Well... how about a troop of Girl Scouts bearing lethal cookies? Well, it's NOT that. It isn't floridated Orange KOOL-AID with (or without) SUGAR.

No, it is DEFINITELY NOT one half ($\frac{1}{2}$) of a braziere. It is NOT a pair of Rocky Horror lips (even if the tongue HAS five stitches). It is NOT a bladeless knife without a handle. Did you think it was an Anti-Cal Notice? Well, NO, I guess not. (You remember it was a FOOTBALL, don't you?) I KNOW! You thought it was a lemon-flavoured rustproof self-propelled armour-plated diamond-studded radioactive hand grenade!

You're NOT even CLOSE!

Did you think:

- that it is a Cracker Jack Surprise?
- that it was a Tonka Toy truck after it was stepped on by an elephant?
- that I can't possibly be reading this dribble?

(Check only one:)

UW Arts Centre News

UW Art Exhibition Takes In 'Land & Sea' Viewpoints of Prince Edward Island

An exhibition of paintings and works on paper and sculpture by artists Charlotte Hammond and Felicity Redgrave. The two-woman exhibition is on display at the UW Arts Centre Gallery in the Modern Languages building. The show runs until October 11 and gallery hours are Monday to Friday, 9 a.m. to 4 p.m., and Sundays 2 p.m. to 5 p.m. Special hours for Oktoberfest on Saturday, October 10, when the gallery will be open from 2 p.m. to 5 p.m.

Charlie Brown Comes To Oktoberfest at UW

The UW Arts Centre is presenting the National Players of Washington, D.C. in a production of the Broadway musical "You're A Good Man, Charlie Brown" based on the famous 'Peanuts' cartoon. There will be one performance only on Friday, October 9 at 8 p.m. in the Humanities Theatre. Seats are reserved and tickets are \$9.50 (students and senior citizens \$8.00). Tickets are available at the UW Arts Centre Box office, Humanities Theatre (885-4280). Ticket vouchers can be purchased off campus at George Kadwell Records (Waterloo Square and Stanley Park Mall), The Centre in the Square (in downtown Kitchener), and the Information Centre, Fairview Park Mall.

The Travellers Bring Gemutlichkeit To Kids

The Travellers will be stopping off again this year at the Humanities Theatre during the Oktoberfest celebrations on Tuesday, October 13 for shows at 4:30 p.m. and 7:00 p.m. Tickets are \$3.50.

International Film Series

October 15, 1981

The Marriage of Maria Braun (Germany, 1979).
Hailed as Fassbinder's greatest film.
Short Subject: Bass On Titles by Saul Bass.
Academy Award winner.

October 28, 1981

The Last Tycoon (U.S.A., 1976).
Directed by Elia Kazan.
Based on the F. Scott Fitzgerald story.
Short Subject: A Dylan Thomas Memoir
by Bayley Silleck.
2 American Film awards.

Show time for both of these presentations is 8 p.m. The films are being shown at the Humanities Theatre; admission is \$2.00 (\$1.50 for students and senior citizens) plus a 50 cent one-night membership.

PLATTER SPATTER

Throbbing Gristle's Greatest Hits *Throbbing Gristle*

Upon first glance at a record cover, the first thing a person with any pretensions to rock music knowledge does is to try and classify the record. Usually, it's fairly easy: if the cover consists of a full-face photo of some schoolboy with blow-dried bleached blond hair, it is safe to assume that the disc is aimed at the pre-teen *Tiger Beat* magazine crowd. Likewise, if the record has a title such as "Raw Electric Power" and bears a picture of four stoned-out individuals with hair down to their waists dressed head-to-foot in black leather and studs, a reasonable inference would be that the music is what is termed 'heavy metal'; i.e., it contains enough screaming guitar distortion to flatten a medium-sized building.

However, it would seem at first glance at the cover that *Throbbing Gristle's Greatest Hits* cannot be so neatly categorized: in the top right-hand corner, we have the legend 'visual sound STEREO' and the record's title, both done up in early 1960's can-also-be-played-on-mono type; underneath that is a picture of a ravishingly beautiful creature wearing a strapless gown and staring straight back at you with large brown eyes; at the bottom, one finds the motto 'Entertainment Through Pain'. This certainly defies categorization.

The back cover photo of the band doesn't make things any clearer, either. First off, we have the front cover girl, who is looking at the camera in such a way as to give the impression that she is much, much smarter than she pretends to be; on her right is a gentleman who looks like a bloodhound, dressed in an Ugly American Tourist outfit. At bottom left, one finds someone with a chubby face, ears that stick out like car doors and a village-idiot expression; above him is the fourth member of the band, a watery-eyed individual who looks like he spent his childhood mixing strange concoctions with his toy chemistry set.....

Enough florid prose concerning the cover already: what of the music? Generally, what any record reviewer worth his salt would do at this point is give the record a judicious listening or two and then make a vain attempt to seem like an erudite and knowledgeable critic, as opposed to sounding like some ignorant mathie on work term trying to fill space by spewing out adjectives like Gatling-gun fire on a subject that he knows virtually nothing about. Well, you'll have to excuse me on this one, friends - I can't do it. I mean, how can one adequately describe a song like 'What A Day', which features a repetitive clanking noise which causes waves of irritation to emanate from the base of the skull and outward down the length of one's arms? Or how about 'Subhuman', which seems to consist of cacaphony mixed in with bursts of dead silence, over which a voice shrieks phrases like "drinking dirty water" in a tone that one formerly thought impossible for a human being to achieve?

I'm not even going to attempt to do this one justice; all I can do is recommend that you beg, borrow, buy or otherwise contrive to get hold of a copy (alas, only available as an import) and decide for yourself whether this lot are making Important Statements or just noodling about with various gadgets, close with a quote from the marvelously crazed liner notes composed by a man named Claude Bessy, and then put something soothing on my stereo and try to get some sleep.

"The little pain you may feel upon impact soon subsides, a mere trickle of quickly drying blood perhaps a vague numbness on the outer rim, and this pittance of a fee in exchange for what gifts! what power! what holy cacaphony and what inspiring words to play with, meditate upon, toss about, stick your head in or drop directly upon the cranium of a loved one or a barely-tolerated one!"

Good night.

David Till

Fun With Toruses

The torus below has a hole in it and unlimited elasticity. Turn it inside out. No tearing allowed.



Answer
next issue.

NEXT ISSUE:

FUN
WITH
TAURUSES



A Frosh-Eye View of Orientation '81

This past week I had the good fortune of participating in the mathSOC orientation events for their frosh. Even the Frosh '81 T-shirts weren't bad (the green grows on you something like fungus).

Tuesday began with helping mathSOC's social director and busybody, Tracey Allen (*now ex-social director; she resigned - ed*), sell this year's edition of the math faculty T-shirts. The demand for them was high as a frosh shirt paid for itself in discounts at all mathSOC events during the week. If you did not get yours, you missed out on a fantastic deal, even if you were not planning on wearing the frosh shirt again in your life.

The worst part of Orientation Week came on Wednesday evening at 7 PM. The ELPE was, fortunately, followed by a Wine and Cheese party, which was to provide an opportunity to meet some of the professors, very few of whom showed up. It did, however, give everybody an opportunity to meet fellow frosh and upperclassmen in the faculty. If more of the professors had shown up at the affair it would have been a better event than it was.

Thursday brought the Scavenger Hunt for 47 items that could be found with varying degrees of difficulty. (I still don't know Ponzo, but his random constant was blatantly obvious.) The tug-of-war was cancelled, but the roller skating at Super Skate Seven proved to be interesting for a first-timer. This was followed by Movie Night in the lecture hall. mathSOC managed to get its hands on two excellent movies which provided a perfect end to a busy day.

Due to circumstances beyond control, the 'Meet The Log' parade did not go off at all. The Frosh Pub was disappointing in that not many people could get past the door committee.

SciSoc teamed up with us for a field day at Columbia Field and a barbecue at the Minota Hagey pit on Saturday. Believe it or not, they outnumbered us! More participation from the math frosh would have been appreciated, but it was still an exciting day. (Thanks to SciSoc for the burgers after the football game.)

Sunday brought the all night movies which DO NOT rate any further comment here.

All in all, Orientation Week was fun for all those involved, and I am looking forward to helping out with Orientation '83.

WJ Jordan
mathSOC resident frosh

History of the World - Part N

This being the end of the third week of the term my son, you, being a foolish young frosh, have likely noticed a bewildering weekly (or thereabouts) phenomenon. Strange bundles of low quality paper inscribed with all manner of communist propaganda keep appearing in the foyer of the third floor of the Math and Computer building. These, my son, are Chevrons, whose variegated history I am about to reveal to you.

In the beginning, some dolt created the Federation of Students, and he saw that this was not good, but by that time there wasn't a hell of a lot he could do about it. Thus the Federation grew, prospered (after a fashion) and multiplied. But mostly it multiplied. It begat B.Ed. and B.Ent. and countless other nonsensical creatures. And favoured of all the children of the fecund Feds was Chevron, for in those days Chevron was cherished by the students.

Yes, hard though it may be to give the thought credence, the youth of Chevron was a glorious time (so I exaggerate a little). Chevron was good and wise, and spake unto the students telling them that which they truly wished to know. And the students were well pleased and did bestow upon the Feds a great gift known as the Fee. And, quite naturally, the Feds were also well pleased and did bestow upon the students Nothing, which is the best deal the students have ever gotten from the Feds.

And so all was thought well with the world as we know it. But unbeknownst to the Feds and their faithful, the dark lord Larry was hatching a scheme of incalculable asininity. For Larry was a disciple of CPC-ML, the god of sloth, cowardice, betrayal, and communist regimes, and Larry was wroth that all did not revere CPC-ML as did he. So Larry thought for untold ages, and eventually it is said that some glimmering of an idea managed to partially squeeze into what passed for his mind. Thus came unto Larry his great plan, his plan to seize Chevron from the Feds and turn it to his own insignificant ends.

And so it came to pass that the evil Larry gathered unto himself his loyal sycophants Salah, Neil, Jules and others more worthy of mention. And they did go unto the Feds and did speak them fair and did generously offer to assist in the education of the Feds' favoured child Chevron. And the Feds were deceived by Larry's fair words and did place Chevron in the care of Larry and his minions, so that Chevron might be further educated.

And so Larry educated Chevron well in the arts of libel, misrepresentation, and

making the rich pay. an Chevron, being an apt pupil, did learn these things well and perform them even better. Thus did Chevron come to be the mouth of Larry and through him his demented god CPC-ML.

But then the students learned of this blasphemy and rose up in a great and terrible anger against the Feds for allowing Larry to do this monstrous thing. And the Feds themselves grew angry and spawned many committees to 'look into the matter'. But the students saw that this would accomplish nought and in their monumental anger against the Feds caused to be refunded the Fee.

And now did the Feds grow most desperate in their anger against Larry, for their source of funds was dried up. Thus they found it necessary to actually take action on the matter. So, reluctantly, the Feds rose up and smote both Larry and Chevron with their wrath and banished them forever from the sacred grounds of UW. Then, they begat a new child, Imprint, to take the favoured place formerly held by Chevron. And Imprint was wise and good and spake unto the students telling them that which they truly wished to know. And the students were once more well pleased and gave back unto the Feds the Fee. And the Feds were happy once more and went back to giving the students Nothing to complain about. But the Feds did cause the Fee to be split, giving part to Imprint and keeping most of it themselves, so that the students could cause to be refunded Imprint's fee without threatening the sacred Fee of the Feds. And to this day Imprint has remained mostly good if not terribly wise and the students have remained content if not terribly happy.

And what, you ask, of Larry and Chevron. Well, Larry has been forsaken by his god, and Chevron's parents have disowned him, but still they continue to scratch out a wretched existence on the borderlands of UW. And occasionally, when the Feds' backs are turned, Larry and Chevron will even skulk back onto Campus for a time and attempt to spread their outdated lies. But the students have grown wise and make sport of the pathetic pair, and some, pitying them, even give them a few scraps to supplement their miserable existence in exile.

And here is where I would like to say that the tale ends, but it continues its dreary course even now. And I suppose it will continue to continue until Larry and Chevron see the error of their ways and fade into obscurity. Which probably means never.

gvbczoff

feedback!

Editor,

Re: "Of Cabbages and Kings" Friday, Sept. 18, 1981

I really wonder how E. Siastes can consider himself one of "the few good people". His article presents him as something quite different.

First of all, bigoted remarks like his do not deserve publication. His remarks about his professor's supposed "colony of relatives in some godforsaken place like Botswana" is disgustingly racist. And many people consider children with Down's Syndrome as something more than horrors.

What is so obscene about the open space? Not only does it make UW a beautiful campus, but it is the university's future development space - something that some older universities (with tradition and finances) lack. It seems rather contradictory that someone who enjoys

sunrises is upset by the university's extra land - there is still a good amount of land among the buildings. (Does the Arts Library really "squat"?)

Does Siastes' roommate know that he has been branded as a moron? I wish them a pleasant term together. (By the way, what exactly is *non-mutual copulation*?)

Another contradiction: if Siastes feels that his brain is becoming atrophied, the campus is appalling, and the social atmosphere repellent, why is he still here? Could it be that even though playing the "intellectual" snob, he isn't adverse to letting his mind rot? Get lost, Siastes!

Steve Reid
4A C.S.

P.S. I dispute the opinion held by some people that Siastes' article was well-written. He overuses his vocabulary, just to give this article a snobbish "intellectual" flavour - something that should be avoided.

For Madmen Only

The Keys to the Ancient Kingdom

Psychologist Carl Jung stressed the symbol-creating function in man's unconscious mind. This function gives meaning, purpose and a healing effect in one's life. We constantly use symbolic terms to represent concepts that we cannot define or fully comprehend. (For example, a cross is a well known symbol of divinity.) The most important of these symbols Jung called archetypes.

Archetypes are the ancient and evolved symbols of mankind. They are inherited, and evolved much like man's physical traits did. According to Jung, archetypes have a profound effect on all our mental behaviour. Thus they affect all man's cultural activities - mathematics and science included.

Most of the basic concepts of physics are such archetypes. For example, the concepts of space, time, matter, energy, continuum or field, and particle were originally intuitive, semi-mythological, archetypal ideas of the old Greek philosophers.

Our main ideas and images relating to God are archetypes. Rene Descartes believed the absolute validity of the law of causality was "proved by the fact that God is immutable in His decisions and actions." Astronomer Johannes Kepler believed that there are exactly three dimensions of space on account of the Trinity. More recently, Albert Einstein

declared "God does not play dice," disagreeing with the statistical nature of quantum mechanics.

Jung and physicist Wolfgang Pauli began to examine microphysics as a fertile ground for archetypes. For example, the concepts of interdependentness and complementarity are ancient religious ideas. The term 'complementarity' is a term coined by Niels Bohr when he was studying how light behaves in both a particle-like and a wave-like manner, depending on how we choose to observe it. Bohr was later greatly impressed by how this behaviour related to the ancient Chinese concepts of yin and yang. Further, the illusionary nature of absolute space and time is in the mysticism of all times.

In mathematics, the natural numbers are archetypes rather than concepts consciously invented for purposes of calculation.

The creative work of mathematicians and physicists (and ourselves) has its foundation and some inspiration in the archetypes we all share consciously and unconsciously. Who knows what great discoveries are yet to be made because of this theory of archetypes?

Jung and Pauli envisioned a fusion of psychology and science. This will hopefully be further discussed in a future article. Bye for now.

Hugh McCague

I've given up on the typewriter, finally, so you are forced to read my bad handwriting. This week we were: Jim Jordan (ohit, frosh, photon & layout); William Hughes (const.); Greg Bezoff (foot & chevron); David Welbourn (graphix, gridword editing, football rambling); Richard cleve (torus, article next week); Hugh McCague (madmen); Steve Reid (feedback); D'Arcy Emery (pizza pie stuff); E. Siastes (cabbages and kings) and me (I'm David Till.)
Take it easy, but take it; see ya next week.

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HELP WANTED

Kitchen help and drivers with car needed immediately.

Please apply to Pizza Pie at Albert and Hazel (Parkdale Plaza).