After a busy January and a FASSfilled early February, the CSC exec started working on getting some meetings together. The result is a March full of interesting meetings. Yesterday, we heard Professor Hugh Redelmeier, who recently joined the CS Department, attacking the concept of the variable in programming languages. Next Thursday, Prof. Kelly Booth will discuss the use of Pascal to write large programs (specifically a graphics package) and some of the problems that arise. Prof. Tom Cargill will then examine how the programming language Ada solves some of Pascal's problems. Ada was developed for the U.S. Department of Defense and is destined to become a world-wide standard. This should prove to be a very interesting talk for those with strong

opinions for or against typed languages. Can Ada solve the problems that Pascal has with typing? Come to the meeting, at 8:00 p.m. on Thursday, March 5th, to find out. Posters will announce the room.

A week later, on the 12th, the CSC will present a Movie Night, with some great films, some of which may even have something to do with computer science! More details will come along later.

Later in the month, we hope to present a talk by a former student now working at Bell-Northern Research in Ottawa. He will discuss information provider terminals for Telidon.

For the more distant future, we have contacted lecturers arranged by the ACM and have some tentative commitments for next term. For the even more distant future (sadly, more likely in an alternate universe than in ours) we hope to get Donald E. Knuth to speak here. We have sent out a letter of request, but have yet to receive a reply. It is rumoured that he doesn't like to travel, but he does think that UW is a good school. (We buy his mega-priced books, don't we?? - tech ed)

Finally, the CSC Curriculum Group is still going strong, as our weekly meetings continue. There will be another meeting this afternoon at 3:30, starting in the CSC office (MC 3037), and moving elsewhere if necessary. If you have any comments on the curriculum, please come and give them to us. Now that we have had some general discussions of problems, at this meeting we'll map out a strategy for making suggestions for change.

peter rowley



Another C&D Threatened

The Environmental Studies Society's C&D stand has joined the list of student services endangered by a possible Food Services takeover.

Many of you may be aware of the repeated threats against the C&D run by MathSoc in the third floor lounge. Recently the sandwich contract for the EngSoc C&D was taken over by Food Services. This apparently was accomplished by Food Services underbidding the prices of the former supplier. Unfortunately it seems that the quality and variety of the sandwiches supplied to Engineering have gone downhill as well according to some Engineering students. It seems as if some students are having problems getting their complaints acknowledged. Apparently a similar thing happened the last time Food Services supplied EngSoc.

However the problem in Environmental Studies is quite different. In fact it involves the location and the very existence of the ESS C&D stand.

Despite the construction of that marvel [sic] of architectural beauty [sic] called ES2, the Faculty of ES apparently will still be short of space. (Perhaps ES2 should have been bigger; would another floor have ruined the aesthetics of the campus any more?) Talk in the ES faculty has centred around putting a glass bubble over the ES1 courtyard to make it into a lounge. However in that case the Environmental Soc's office and C&D stand might have to be moved from its present location. That might not be so bad for the society, but other problems could develop.

Apparently Food Services may wish to set up a facility in the new courtyard lounge. This would may cause the closing of the ESS C&D or hurt its revenue. Food Services already has a facility in the Modern Languages Building which is connected to by tunnel and immediately adjacent to ES1. Also South Campus Hall, the home of Food Services major facility, can be reached from ES1 by a tunnel system, so that users would not have to go outside in winter. The addition of another Food Services outlet in ES1 or ES2 may not really be necessary. (Necessary? How could it ever be necessary? - tech ed) Whether this happens or not could affect the future of ESS's C&D.

ay

ION

ne

no

i.e

1.

Math Gets VAXinated - MFCF to buy VAX-11/780

A recent interview with Morris, Professor John Math of the Director Faculty Computing Facility (MFCF) confirmed the rampant rumour that the MFCF will soon obtain another large computer. Arriving sometime in May and taking residence in the up 11/45 (UNIX) current machine room will be a VAX-11/780, with 4 megabytes of MOS memory, 600 mega-bytes of RM05 disk space, a Floating Point Accelerator, and a 800/1600bpi magnetic tape drive which runs at 125 For fast). ips (i.e. comparison purposes, the Honeywell 66/60 has a mere 512K 36-bit words, which is 2M 9-bit bytes, or just a bit more than half of the VAX's memory capacity. The 66/60 has 1000 MB of disk space.

The computer will communicate with the outside world via 32 asynchronous lines, 16 hardwired to terminals in the present UNIX terminal room, and 16 on the Gandalf system. of the hardwired Four lines will be connected to LA120 Decwriters, to provide hardcopy capability. The VAX will not have a separate line printer, but it will have a high-speed synchronous line to the Honeywell, so it can make 66/60's use of the printers for big jobs.

The VAX-11/780 is an immachine, the pressive result of a programme at Digital Equipment Corporation to enhance the reliability of computers. Some sites have logged up-times in excess of 95%. Part of and reliability this serviceability is due to of a presence the microcomputer-based console (an LSI-11) which ties into various parts of the main CPU and can be used for automated diagnosis of failures. Attached to the LSI-11 is a Decwriter which serves as the system console.

The 11/780 is also powerful. It is a 32-bit machine, with a 31-bit adspace for user dress processes and a constantly accessible 31-bit system space. Its instructions are more powerful than those of most computers. For example, it can insert an item in a queue, or perform the computation A(I) := B(I) + C(I) in a single instruction. It has an 8K cache which reduces memory cycle time to 290 nanoseconds, along with an instruction buffer and a translation buffer. The last allows efficient implementation of the memory VAX's virtual scheme, which pages memory from disk to give the programmer the impression of using up to 2°32 bytes of memory as if it were all physical MOS memory. Finally, it has three improve buses to throughput: the UNIBUS, for connection to terminal drivers and other standard PDP-11 UNIBUS devices, the MASSBUS, to handle the disk and tape drives, and the Synchronous Backplane Interconnect (SBI) to connect the processor and memory.

will all this What hardware do? It will run the November 1980 distriof Berkeley bution UNIX/32V, for which the University will pay \$600 (\$300 to the University of California and \$300 to Western Electric for a UNIX license). standard It will handle the load

currently supported by the PDP-11/45 running UNIX, as well as most graphics work, including support of CS488/688. The amount of filespace on the 65/60 devoted to graphics has been estimated at 100-200 MB, so the arrival of the VAX will certainly decrease the load on the 66/60's filesystem. The supplanted 11/45 will move to the fourth floor, where it will drive the newly acquired frame buffer.

In May, both the 11/45 and the VAX will run UNIX, the latter in test mode. Berkeley UNIX does not have drivers for the RM05 disk drives that will be used -- they will have to be written. If all goes well, courses should be switched to the VAX before the end of May. In any will the VAX case, certainly be used for course work in the fall.

The whole package will cost approximately \$407,000. The money will come from general university funds, to be paid back by the Math Faculty over four to five years.

Thus, for the first time, a large DEC machine arrive will soon on Because the VAX campus. will be running UNIX and not DEC's VAX/VMS operating system, it is unclear whether or not a cooperative relationship for the development of software will emerge with DEC as it has with Honeywell and IBM. Whatever fringe benefits evolve, however, it is clear that the arrival of the VAX will greatly improve the facilities computing to Math available students.

peter rowley

Galumphing Gourmets

The Laurel Room South Campus Hall.

This modest manifestation of Food Services belies their spotty reputation earned in other troughs they operate. Operating for lunch and Wednesday, Thursday and Friday evenings, this fixed price (\$3.85) hot and cold re-entrant buffet is undoubtedly the best food on campus.

There is a comprehensive salad bar from which we definitely recommend the `pink stuff' (some sort of fruit mousse with oranges) and the deviled eggs. There is also the usual selection of three bean salad (ugh!), cottage cheese, potato salad, and so on.

There is a choice between two hot entrees of which one is good, and the other better. One recent choice was between breaded shrimp and a quite good chicken a la king (no vol au vent). In addition to the hot entrees, there are vegetables and potatoes. A platter of finger food, including olives, celery radishes is also and placed at the hot food station of the buffet, together with sauces appropriate to the entrees.

Desserts are included in the price along with regular beverages. Soft drinks can be ordered from the bar at 20¢ each. The bar is run by Bar Services and will serve alcoholic beverages on production of University identification.

The Laurel Room is not very large, and reservations are advised, particularly near end of term and on Fridays. Phone extension 3196. Rating: 2.5 Bunnies As threatened in a previous column, herewith a recipe for those of you who want to do it yourself. We are starting with a dessert, or emergency supplies, however you want to look at it. Thanks for sharing his culinary expertise go to Ralph Hill (rdhill).

Ralph's Cookies Take one cup of butter and melt it over low heat. Add 1 cup brown sugar, 1 whole egg, whisking well. Then add 1 tsp vanilla extract, and a good tsp of salt. Add 1 cup Bisquick and blend thoroughly. Remove from heat and add: 6 oz shredded coconut, 2 tbsp whole milk, 1 tbsp crunchy peanut butter, cinnamon to taste, 6 oz chocolate chips and as much rolled oats as you can stir in. Drop onto greased cookie sheet by tablespoonfuls (globs) and bake at 275F for 15 to 20 minutes. Allow to cool before removing from pan.

Previously Rated.

The Corkscrew 400 King St. W, Kitchener.

A relatively expensive eatery in northern Kitchener. Good recursive salads, but really only a place for the well-heeled carnivore. Licenced. Major cards. \$10 - \$15 per person without drinks. 1.7 Bunnies The Gypsy Cafe 84 King Street North, Waterloo. An eclectic delicatessen well within the reach of most students. Average entree \$4.00 to \$5.00. No licence. 2.0 Bunnies jcwinterton et al.

for the entrepreneur

Those who think that the entrepreneurial spirit is no longer present in Canada have not heard about Videomania.

Videomania is the name of a new magazine that is about the burgeoning video industry in Canada. The last few years has seen an explosion of interest in the video market. Sales of video recording and playback machines, and video tapes and discs have taken off in North America. The impending introduction of pay TV to Canada will certainly spur more interest in the video field.

However the introduction of Videomania may be of interest to students of UW who have ideas about starting their own businesses. Three of the principal people involved in the Toronto-based publication are former students of this university.

David Carter, Salah Bachir, and Larry Hannant all have extensive experience in the field of writing. Waterloo students may remember them as important contributors to the Chevron. Mr. Bachir also has experience in advertising and in the stereo and audio business. Their talents may combine to produce a unique publication of interest to videophiles. It will be interesting to see how this magazine does in the long run.

M*A*S*H

There has been growing concern about the problem of sexual assaults around the University of Water-100. Since last April there have been seven reported assaults in Waterloo Park, two since January. There have also been problems reported along the path to the Phi-Street Co-op lip Residences.

The Federation of students is currently looking at two ways of alleviating the problem. The long term solution thought necessary is to nave lights installed in the path through Waterloo Park. With this in mind the Federation will be making a presentation to the Waterloo City Council this coming Monday (March 9) asking that they instal such lighting as soon as possible. (Attention is also being given to the Philip Street path, but as this crosses private property more problems are involved)

As a short term solution Bob Elliott, (the new Federation Vice-President), is organizing an escort service, M.A.S.H (Men Against Sexual Harrasment), which will operate for the remaining weeks in March, offering escorts thourgh Waterloo Park. Plans are to run the service Monday to Thursday, and the hours of 8:30-11:30 have been proposed although this is currently under review.

The Federation is working closely with the Police in organizing this service. It has been emphasized that this is an escort service not a patrol. Volunteers are needed, drop by the Federation office for more details.

As well as offering a short term solution the Federation hopes that this action will, in the words of President Wim Simonis, "draw attention to the issue, show the serious nature of the issue, and perhaps put pressure on Waterloo City Council''.

Concert for Cancer

The North Waterloo Unit of the Cancer Society is holding a 'Concert for Cancer' on Wednesday, April 1, at 8:00 PM in the Center in the Square. This concert will feature Dave Broadfoot, Don Harron (of Charlie Farquharson fame), Catherine McKinnon, Second City, Yuk Yuks and others.

Seats come in two varieties. The front row seats are \$25 each (which includes a reception). Ordinary seats are \$10. The Federation has a block of about 200 seats in th 10-14 row. A fund (of about \$2000) has been donated by the Federation, Societies, Villages, and Church Colleges. Part of this fund will be used to subsidize the ticket prices. Waterloo students can obtain tickets from the Fed office for \$7.50. The rest of the money will be given as a direct donation to the Cancer Society.

Tickets will be available in the Federation office from March 9 to 20. Bring your student card.

Beverly Glenn-Copeland will do Benefit Concert for Zimbabwe

Toronto jazz pianist and singer Beverly Glenn-Copeland will perform a benefit concert for Zimbabwe reconstruction at Conrad Grebel College on Friday March 13 at 8 pm.

People acquainted with the horrors of apartheid in South Africa happily greeted the end of a similar White supremist regime in neighbouring Rodesia last March. But political independence did not immediately solve all the new nation's problems: Zimbabwe has had to correct generations of discriminatory practices against the majority African population, as well as repair the tremendous damage done by seven years of war.

Several Kitchener-Waterloo organizations, including the Waterloo Public Inerest Research Group (WPIRG), Canadian University Service Overseas (CUSO), K-W Oxfam and the Global Community Centre, are currently raising money for Zimbabwe reconstruction projects.

Tickets for her performance are \$4, or \$3.50 for WPIRG or Federation of Students members, and are available from WPIRG and the Federation of Students.

In Sampling we're taught, unaware, What a circus of symbols may bear; Now it's not that I mind Good notation, refined... Yet without it there's just nothing there!

BRIEF ENCOUNTER

type bype

1 type

Deadringer Report

welcome sports fans, all Canada, across the United-States, Alberta and Quebec. We're in Waterloo this week, bringing you live reporting of last Monday night's Floor Hockey action. In the main the event, Math Deadringers lost a controversial 2-1 game to the Ducks.

In the opening twenty, the play was sluggish, with nothing much to choose from both teams. The Ringers again were first to flash the red light. Wayne Hooper drove a pretty shot to the short side, beating the enemy nestminder. However, several minutes later, the Ducks tied the game with a rising snot, just under the crossbar. The score at halftime was 1-1.

In the second half, the play was much the same, both teams getting few shots, and few scoring opportunities. And then, with five minutes remaining, playing short-handed, the Ringers failed to clear the ring from their zone. One of the Ducks intercepted, went in alone, and rifled an average speed shot into the

cop corner of the cage. In the aying minutes, the Ringers' Kelvin Martin pushed one in the net for the apparent equalizer. But wait, the referee called it off. No goal! No goal! The ref claimed that Kelvin was in the goalie's crease. What an outrage! The Ringers were funing. The game ended, leaving the Ringers on the short end of a 2-1 score. And there you have it, ladies and gentlemen.

The three stars as selected by Floor Hockey Night in Canada were: Andy Pink, Wayne Hooper and Ron Sisson.

The Deadringers finish the season in second place, with 3 wins and two losses. The Ringers therefore get a bye into the second round of the playoffs. This means a week off to rest, to study, or to travel to Ile-au-Noix, or Sudbury, or Mississauga. The first game is Monday playoff March 9th, 5:45 at Seagram's Stadium. Let's all wish the Ringers the best of luck in the playoffs.

M. Adringer



"I'D SURE LIKE TO APOLOGIZE FOR MY TERRIBLE BEHAVIOR!"





5

-192

ty pe

1+ype

Owning a printer and getting printed listings are two completely different problems. Once you've managed to scrounge yourself a printer you've still got to integrate it into your system. In the business this is known as `interfacing'' the getting the printer or bugger to work''.

The printer I had acquired was a Centronics 101A that weighed in at about 70 or 80 pounds. It also had a half-inch diameter cable creeping from its bowels that terminated in a 50 wire Cinch connector (a Cinch connector is a little clamp-like affair that has an indentation running its length which is filled with metal contacts - aw, don't worry about it). My only other information about the thing was that the input was parallel and that two nice young men had put it in my Aunt's car for her.

The difference between serial and parallel data is critical. With serial you transfer have essentially a single data line which alternates between 1's and 0's until a full character has been transferred (7 bits). A parallel interface has 7 data lines and so can transfer a full character in a single shot, taking less than one-seventh of the time that parallel does. Since my printer was parallel this meant that data transfer would be fairly fast - good! But Martha (that's one of my computers) only had serial output - · bad! Fred, on the other hand (yes, that's the name of the other one), did have a

NOTEPAD

parallel interface. Unfortunately Al (that's the modem) accepted only serial input which meant Fred couldn't use it. Besides, Fred didn't have disk while Martha did (what a bummer, eh?). So I either had to give Martha a parallel interface or Fred a serial one.

I decided that since the majority of my work was currently being done on Martha that she should get a parallel port. Fred grew quite upset at this so I pulled his plug and let his chips cool for a while.

Martha's CPU was an 8080A microprocessor. This chip was designed to do I/O via the IN and OUT commands. IN and OUT would each dump a port address from 0 to 255 on the lower 8 bits of the address line as well as placing a 1 on the IO line. Now the way this works is thusly: both memory and ports both look at the address lines. If the IO line is high (has a 1) then only the ports listen, if it is low then only memory listens. For ports the 256 different addresses allow the CPU to access up to 256 different inputs/outputs.

First thing you have to do is figure out what your port is going to look like. It has to be able to hold data transmitted to it as well as data which it wishes to send back. You can either try to design the whole thing yourself or you can wimp out like I did and simply buy a port chip.

The chip I bought was the Motorola 6820. This thing has two ports on it (hey, why not go whole hog

eh?) named A and B. These can each handle 8 bits of data and each bit can be programmed individually to be either input or output. This means that the port takes a total of ten different commands: set direction of A, set direction of B, read/write A, read/write B (the CPU has read/write line that a determines which of these occurs). Each of these commands uses up a separate port number giving a total of 4 port numbers.

Now, you have to be careful that your machine has 4 free port addresses. On Martha 80 thru 95 were available so I chose 80, 81, 82, and 83. So, you're ready to go. You've simply got to set up some logic to check for the proper addresses and that the IO line is high. When all this is true you turn on the chip and let it do its stuff.

All told, the design ended up using 3 chips: the 6820, a chip with 2 four input NAND gates (don't worry about it), and another with 2 four input NOR gates. Thes design looked good on paper...now to realize it in hardware.

If you've ever had the chance to look inside a piece of modern electronic equipment, no doubt you've seen those neat little perforated boards with nice, orderly little traces of copper joining things together. These are known as printed circuit boards or PCBs. Making one of these involves special photographic equipma .. 1 ..

continues on page 7

6

mathNEWS volume 25, number 7

continued from page 6

ment, acid and strange yellow stains on your fingertips you won't be doing it this way. This leaves only two other methods: hand-soldering, and wire wrap.

Hand-soldering involves melting a soft metal alloy known as solder with a hot iron and using this to join points together via wires soldered to contacts simple huh? For small projects this isn't too bad but when you have hundreds of contacts to solder it can get pretty tedious, not to mention the fumes given off by the melted solder.

wrapping is Wire essentially the same as soldering except that instead of fastening wires to contacts with solder, you wrap the ends of the wires tightly around the contacts. This is fairly fast and easy to do but has its naturally drawbacks. Wire wrapping requires special sockets for each chip, and the sockets sometimes cost more than the chip!

I'd done soldering jobs before, but I'd never tried wire wrap. This perhaps as much as any other factor decided me towards giving the port a go with wire wrap.

Several Saturdays later found me cross-legged on the floor of my bedroom with wire wrap tool, wire, chips, sockets and perforated board before me. The great adventure about to was begin! Within a few hours my printer would be merrily whipping off listings by the droves.

Or so I thought.

-dthedmonds

Monologue

-with Brad Templeton

ney gets you 1	s tooa, all
	s keep you
alive. Perhap	s it's not
worth it."	The Brite

There will be no Monologue this week, as Mr. Templeton is on assignment (and midterms).

SOCIAL DIRECTOR'S REPORT

The pub last Wednesday was a success as far as I am concerned in spite of the small turnout. (I had not expected a large crowd so at least I was not disappointed.) As far as I know, all who did attend enjoyed themselves. Wednesdays are not the best time to hold a pub but I was unable to book the Math Faculty Lounge for the Thursday so it was either Wednesday or nothing. Anyway, I guess the reasons for the scarcity of numbers were (1) people do not like pubs on Wednesdays; (2) it is a busy part of the term right now with lots of work to be done; and (3) there was a lot of competition with other pubs going on and the free cc movie and the csc meeting etc. The dj was excellent and was able to establish a good rapport with everyone. (And he even had some fancy lights! (Plus he was kinda cute!!!)) I plan to book him for our next and last event as well. I had wanted to

nave a Math-Nurses Pub on March 19th but - again - I can not get the Math Faculty Lounge. Therefore, that pub has been cancelled - much to my regret - or, should I say, much to the regret of the males around here! Our last event will be on Tuesday, March 31st which, in case you don't know, is the official last day of classes. There will be a buffet supper (subsidized so you really should go) for which we will be selling advance tickets. After the supper will be a normal pub. I am hoping to get some of the faculty and grad students to attend as well - but whether they will or not I really can't say. Since this is the last event of the term, I thought it would be nice if people dressed up a bit for it but this is strictly up to you and jeans will not be barred (just discouraged). Well, that is all for this week. I will write more next time. Love 'n' XXX... Marnie

7

THE STRANGER

The stranger called me from the classroom as I walked by. Hearing my name, I walked in expecting to see someone I knew. He was seated at a desk, and was wearing a heavy coat and boots. A bit of snow was melting on his hair and collar.

The man was about 45, maybe 50, but a stranger for certain. He looked me up and down, and laughed softly to himself. I stood quiet while his thoughts drifted for a short while. His face brightened and his smile grew large, but his thoughts were still miles away. Or years behind maybe?

"Hello my friend. How are you?," he said as he came out of his thoughts.

Now the stranger seemed familiar. I was sure I'd seen his face somewhere before. His voice and quiet laugh sounded familiar too. Was it on the radio? No, it was something else, but I couldn't - - friend?

"Hi. Should I know you?"

"Oh, you know me", he laughed, "but you won't realize from where for a while yet." He noticed me staring. "Then you'll laugh too, believe me."

He made quite an impression. His clothes looked too young for him, by about 15 years maybe. Or was it wrong? I sure liked his taste. The colours and style looked really comfortable and attractive and I thought they now suited him. Just the colours I like, too. His boots were still dripping the snow and salt he'd accumulated. He had left a trail into the classroom from the door to his seat.

"I knew you'd like the outfit", he told me. How did he-

"I also remember you've got a few minutes to talk", he continued quickly, "Please be patient with me." He looked at his watch. "I've only got 10 minutes myself."

"I still don't know -"

"I know that, but I'm not going to tell you where you know me from. Like I said, you'll find out soon enough." He smiled again. He must have thought something was funny.

He was a clock watcher. Or rather, a watch watcher. The classroom clock was stopped, as usual. I'd been working so long, I didn't know what time it was myself.

"I've got to go by 2:30", he said to himself, just loud enough that I heard. Lots of afternoon left, so I couldn't have been working for too long.

"What can I do for you?", I asked, "I still don't know where I've seen you before." Perhaps I met his as a child.

"Oh, already you think you've met me? I thought it took longer. I'm not good at remembering details. Anyways, there's not much we can do right now. All I'm supposed to do is meet you this time. Next time is the more important rendezvous. We'll have more time to talk, and we will have more than enough to talk about. I do remember that you've got to get to a class soon."

Class? I still had two hours till my next class.

He smiled and said "It's almost 4:30 now. Check the hall." Sure enough, I had 5 minutes to get to my lecture.

I looked back in the room, and the stranger was standing. He put his gloves in his pockets, tried to shake some snow from his boots, then looked closely at his watch again.

"I've got to go", I said.

"I know." He took one long look at me again, from head to toe. He smiled. "Take care, and I'll see you next time."

Next time? He had said something about next time.

"If you say so. Thanks for reminding me about class. Take care."

I left quickly and started down the hall. I had turned the corner when I realized he had known that I had a class, and that I was thinking I had time before it started. I turned back, but when I got to the room, the stranger was gone. All that was there was the snow puddle and the footprints to it from the door.

I went to class.

mathNEWS volume 25, number 7

continued from page 8

It was late that night that I recognized the stranger. He was right, I laughed. I laughed really hard. Little details of our meeting flashed in my mind. The clothes, the voice, the face.

I eventually relaxed and stopped laughing. I thought about our next meeting. That is going to be something that I'll look forward to till - till when? He never said! He new he forgot details, why didn't he make sure he'd tell me when we're getting together. At least I can remember details now.

The clothes? Of course I'd like the style. The voice? It was a tape recording that I recalled, not the radio. The face? That face had to be almost 50 years old.

Everything was so crystal clear now.

I looked again, then walked away from the mirror.

gkholman

WATSFIC Meets

Since the last mathNEWS, WatsFic has held two meetings.

The first meeting was held on February 19th in MC 5097. In addition to regular war-gaming the sessions and the routine threatening of the mathNEWS reporter. a of other things number were discussed at the meeting.

The Secretary of War that announced D&D a (Dungeons and Dragons) tournament would be held on the days of Saturday March 7, and Sunday March 8. The daytime tournament will be held between the hours of 9 a.m. and 6 p.m. with a lunch break from 1 to 2 p.m. It was also announced that despite from some requests members, there would be no Science Fiction movie night this semester.

The next meeting was held on February 25th, in MC 5158. This meeting was much better attended than the previous one. Even the president showed up. A greater variety of war games was played and the reporter was threatened

with C&D coffee (he had hot chocolate instead). WatsFic members also votel to give an honourary lifetime membership to Denis Mullin. Mullin was a founder and long-time member of WatsFic and editor of Starsongs. He also was a founder of and a long-time editor of mathNEWS and did much volunteer work for Math-Soc.

In a related development it was learned that some members are wishing to start a new Science Fiction magazine on campus. The former Starsongs folded over two years ago. In its place a new magazine to be run by Watsfic members, but not funded under Watsfic is proposed. The tentative name of the new magazine is The Apprentice.

Club members who have not been to the past few meetings are urged to pick up the Watsfic newsletter WATSNEW. This week's issue contains information on Austrailian SF awards and British Fantasy awards. It is available in the Watsfic office in the MC building. Quotes of the Week <u>A weekly collection</u> of amusing campus quotes

This begins what could be a popular weekly feature in mathNEWS. If you read an interesting quote on campus, or hear one from a prof or other well known figure, mail it to mathNEWS for inclusion. Mail can be put in the third floor mail box or sent on TSS.

The problem is it's distracting, but there's not much they can do about it.'' An arts frosh, in Feb. 13

Imprint `Campus Question' on CC free movies. The butterfly has wings of gauze, The firefly, wings of flame. The bedbug has no wings at all, But he gets there just the same. A Valentine's Day message.

ISSN 0705-0410

A weekly (sometimes biweekly) publication of the University of Waterloo Mathematics Society. It is funded by, but independent of, MathSoc, and is the only weekly newspaper on campus with an allvolunteer staff. Content is the responsibility of mathNEWS staff and editors. mathNEWS, MC 3035, University of Waterloo, 200 University Ave. West, Waterloo, Ontario, N2L 3G1.



10i Sales or income (3)

- 11i Mineral spring (3)
- 11m the Anguilla rostrata (3)
- 13a Federal Bureau of Investigation (3)
- 13e To select sounds like vertex (7)
- 13m is human (3)
- 14a Dawn is divine (3)
- 14e America (3)
- 14i Pointer to nothing (3) 14m New (3)
- 15a Tibi hex will be put on display (7)
- 15i CPR city is puzzling (7)

DOWN

- al in a pod (3)
- a5 Pictorial (7)
- al3 Fie! Foe, what pay you Fum? (3)
- bl Royal Order of Registrars (3)
- b5 Automobile (3)
- b9 Paddle (3)
- bl3 Godiva's (3)
- cl Bewitching is can then (7)
- c9 Prim people are, uh, drips (7)
- el Of the water (7) e9 Computer Assisted Instruction (3)
- el3 Auburn? (3)
- fl Chemical suffix (3)
- f5 Something Cryptic and Obvious (3)
- f9 Eggs (3)
- f13 Mind to a Greek letter (3)
- gl To pitch (3)
- g5 Many (7)
- gl3 Tap to touch (3)
- h7 Miss Gabor (3)
- i5 Pat sent for copyrights (7)
- il3 Incorporated (3)
- jl Margaret (3)
- j5 Whiskey grain (3) j9 Generation --- (3)
- j13 North Ireland Regiment (3)
- kl Born (3)
- k5 Pascal/Basic function (3)
- k9 Perfectly alike (7)
- ml Almost alike (7)
- m9 Forestall before airshaft (7) -la-la-la (3)
 - Austrialian bird (3)
- n9 High spot in space (3)
- n13 Rural Engineering Institute (3)
- ol Timely adverb (3)
- ol3 Legendary bird of prey (3)

10e of all Scotish (3)

- nl n5

Grads Quibble Over Persons

3)

7)

The Grad Club held its annual general meeting on February 26th in EL 101. At this meeting a number of bylaws were changed. The membersnip bylaws and the bylaws concerning club officers had the most major changes.

The greatest controversy however was over the elimination of sexist words in the bylaws. Chairman was replaced by chaiperson and he was replaced by he/she. One male member of the audience thought that such a move would bastardize the English language. However a female board member replied that chairman only sounds better because people are not used to such new words as chairperson. The mainly male audience approved the use of words like chairperson. Very few female grad students visit the Grad Club presently, and it was felt there shouldn't be additional barriers to their involvement.

The membership also approved of a motion that broadened to scope of the Grad Club from that of a social club only, to an organization that officially represents Grad students. In doing so the Board of Directors will have more powers.

A final bylaw change that would have eliminated the faculty constituencies which the 25 Board by members are elected was While some tabled. members felt it had merits, most felt that proper notice had not really been given for such a major change in the bylaws. The proposal had

not been brought to the Board of Directors first as is required under corporate law.

Despite the low turnout of 35 persons (though quorum of 57 was met by the use of proxies), much was accomplished at the AGM. In addition to bylaw changes many reports were given by the officers. There was much open discussion regarding the recent renovations in the Club which were generally well received. However controversy some may develop next year when the subject of expansion is discussed by the Board of Directors. The question may be not what the expansion is, but how it is funded. Though current revenues may be able to finance expansion, some members would like to see that expansion partially finance by a laon so that they can keep a compulsory fee for full-time grads. Apparently in 1982 grads

are to decide if compulsory fees continue. Expansion can probably be financed with a refundable fee and compulsory fees can continue whether or not there is an expansion. The issues are not strictly related though some Board members think they are. This will make for a great deal of interest in the activities of next year's Board.

j.j.l.

Anarchronists

The Society of Creative Anachronism is an organization that seeks to selectively recreate the better aspects of the Middle Ages (before 1625). Founded in California (wherelse?) in 1964, the society has spread throughout North America. The continent has been divided into seven "kingdoms". Southern Ontario and the U.S. upper midwestern states form the Middle Kingdom (they must be Tolkein fans).

11

Toronto has a very active SCA chapter and now Kitchener-Waterloo through the ausspices of an oncampus club will also have a chapter. SCA on campus was formed last month and meets in the Campus Centre on most Tuesdays. Through their affiliation with the parent SCA (which is not yet finalized) the local SCA hopes to stay independent of other organizations on campus. Their constitution which is partially modeled on some medieval practices may not be able to totally meet the recognition criteria set out by the Federation.

However this article cannot give proper justice to the SCA club. If you want to learn more about them you are urged to attend their meetings, which are advertised by poster on campus bulletin boards. (They assure us that extreme care is taken to prevent serious injury during their medieval jousting tournaments.) All "lords" and "ladies" (to use SCA terminology) are invited to next meeting. You are urged to get a copy of a publication prepared by some Middle Kingdom members of the SCA that explains the organization in detail.

MamaDuck

In The UW Arts Centre Gallery

The Gallery is in the Modern Languages Building, and is open 9 a.m. to 4 p.m. Monday to Friday and 2 p.m. to 5 p.m. Sundays.

Roger Savage: A Survey Continuing until Mar. 15. Prints, drawings and paintings organized in the Art Gallery of Nova Scotia.

Communique

Ottawa, January 20, 1981: The Honourable Jean-Jaques Blais, Minister of Supply and Services Canada, announced today that the Royal Canadian Mint will strike two commemorative coins in 1981 -- a silver dollar and a \$100 gold coin.

The \$100 gold coin will mark the decision of the Cnadian Parliament, on July 1, 1980, to adopt the





Sublet Apt

Bachelor apartment at Victoria and West. Pool, sauna, and exercise room. Carpeted and partly furnished. Parking. Sublet Mar 1 - Aug 31 for \$225/month. Call 576-8048 for more details. song O Canada as the national anthem of Canada. The obverse of the coin will bear the effigy of Her Majesty Queen Elizabeth II and the inscription ``ELIZABETH II'' ``100 DOLLARS'' and ``CANADA 1931''.

The reverse will depict the map of Canada and, superimposed, a scroll with the first four musical notes of the national anthem. The words CANADA'' will appear below the design which is the work of Nova Scotia artist Roger Savage. The coin will contain 1/2 ounce of gold and will have a diameter of 27 mm. A mintage of 250,000 coins have been approved and this coin will be available from Septemeber 1 to November



Grad Photo Orders Forde Studio personnel will be in MC5161 from 10:00 a.m. to 2:00 p.m. on Monday, March 9, 1981, Tuesday, March 10, 1981, and Monday, March 16, 1981 to take orders for Grad Photos. Please return all proofs unless you wish to be charged \$1.00 per proof. Thank you. MGB'81 Committee, Joe Walker.

MASTHEAD: Finally we are ALMOST finished for tonight (this morning). It's only 3:16;78 am wed morning now ... what else do you expect at this time of day!!! Help came from various and sundry people (and places!). These include Tracey Allen(typing, making sure that i am fed, hunting down diablos); Tracy Tims (our loyal?? subscription editor - if you haven't got yours yet, blane him); Peter rowley (figuring out how to get this thing running on the diablo, csc flash, VAX); Robert Byrd ((this is one of the strange people you met tonight, Gary!) conversationalist, bad jokes, some typing, contributing to the insane atmosphere, etc); Ross Brown (previewing,); William Hughes (everything! previewing, photoning (little that got done before the photon died) layout, ULP, MASH, concert for cancer); Keven Conlin(sweets!, giving up his last piece of pizza very gentlemanly); ashok patle(confidence (or lack of?) in us); Dave Welbourn (gridword, layout); M Adringer (deadringer rpt); GKHolman(NEW creative stuff - keep it up GK!); Marnie Shaw(social); JJLong (grad stuff); Mamduck(anac); and pizza pig for food , and Gary and the port lab for brief moments of sanity and coffee (and time out for space-invaders). Well that all for tonight folks. mathNEWS is brought to you rain or shine ... photon or no photon, system crashes or no crashes, coffee or no coffee, sanity and especially insanity, ... bye till next week, joanne

12