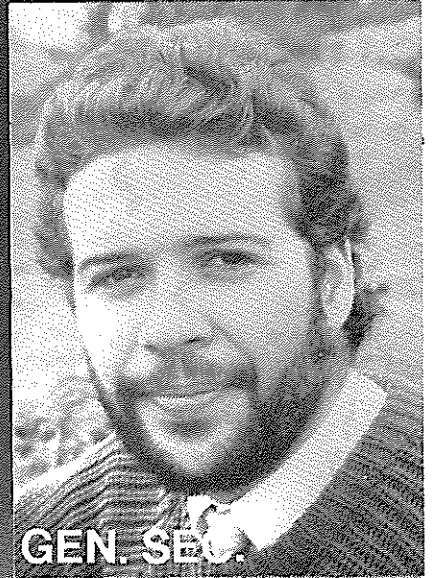


Y Seren

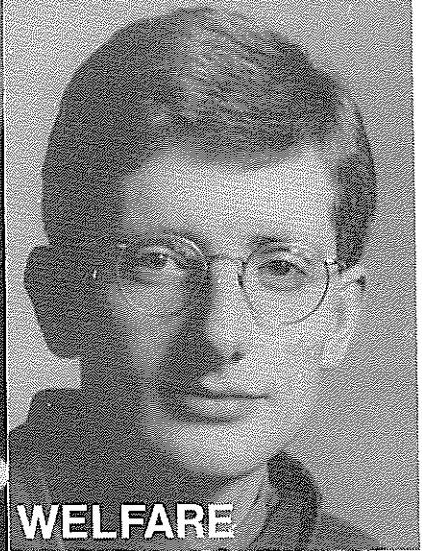
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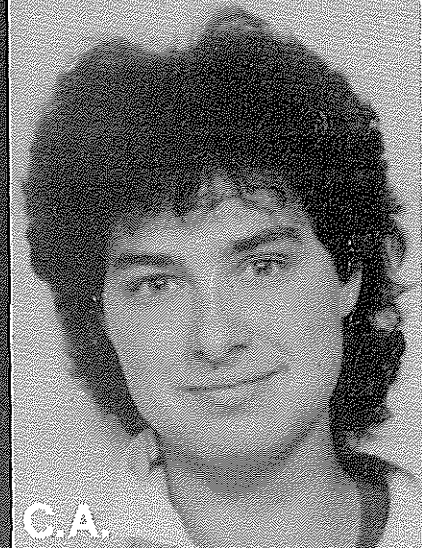
PRESIDENT



GEN. SEC.



WELFARE



C.A.

EDITORIAL

This weeks issue of 'Y Seren' reaches you a few days late so that we can bring you the election results: and what a strange looking bunch next year's Executive are! (See cover) But seriously folks the Editorial Board and staff of the newspaper (few of us that there are) would like to wish our elected officers

a happy and successful year during their term of office; and of course commiserations to the runners up who, without exception, made a fair and friendly competition of it.

Selfishly, we hope that they will be as helpful to the newspaper as this year's Executive have been.

Editorial Co-ordinator.....Nick Jones
Advertising Manager.....Damian Worsley
News Editor.....Huw Williams
Arts Editor.....Andy French
Features Editor.....Jo Housley
Science Editor.....Joe Creed

Design.....Aled Jones
Production.....Bob Stone
Karen George
Rick Peterson
Photography.....Paul Gallantry

Art.....Mike Smith

Editorial Board.....Julia Damassa
Helen Davies
Jon Teppet
Other Contributors.....Barry Kaye
Richard Sproston
The Vegan Drumstick
Cherry Gillespie

Printing.....Copycat

'Y SEREN' is a publication of the UCNW students' Union, Deiniol road, Bangor (Tel Bangor 362075, x14). It is published free every fortnight during term-time.

The views expressed in articles in 'Y Seren' are the views of those who write them and do not necessarily reflect the editorial policy of 'Y Seren', or the policy of the Student's Union as a whole.

BANGOR 1977

PUNK? IT'S CRUD! YOU CAN'T HEAR THE TUNE, THEY CAN'T PLAY THEIR INSTRUMENTS BLAH BLAH



BANGOR 1987

HIP HOP? IT'S CRUD! YOU CAN'T HEAR THE TUNE, THEY CAN'T PLAY THEIR INSTRUMENTS BLAH BLAH



IN A CHANGING WORLD ISN'T IT NICE TO KNOW THAT SOME THINGS WILL ALWAYS STAY THE SAME.

President

Quota - 421 **C.A. Organiser** @ - 54

Martin Purcell

Chris Hughes

New El.

Gen. Sec.

Jon Teppet

Mike Dunn

New El.

Welfare

James Francis

John Farrell

New El.

484 Isabelle Hudgell 98

315 Tina Hergest 5

40 New El. -

@ - 421 **Deputy President 307**

Nick Jones 567

555 New El. 164

207 Overseas Officer 344

77 Clive Humphreys 560

@ - 434 **New El. 126**

1st 2nd NUS - UK - Wales

James Francis 427 436 Sean McArdle 339* 329

John Farrell 394 401 Toni Wylde 332 349*

New El. 44 New El. 59 60

To be ratified

NEWS

st. mary's face-lift

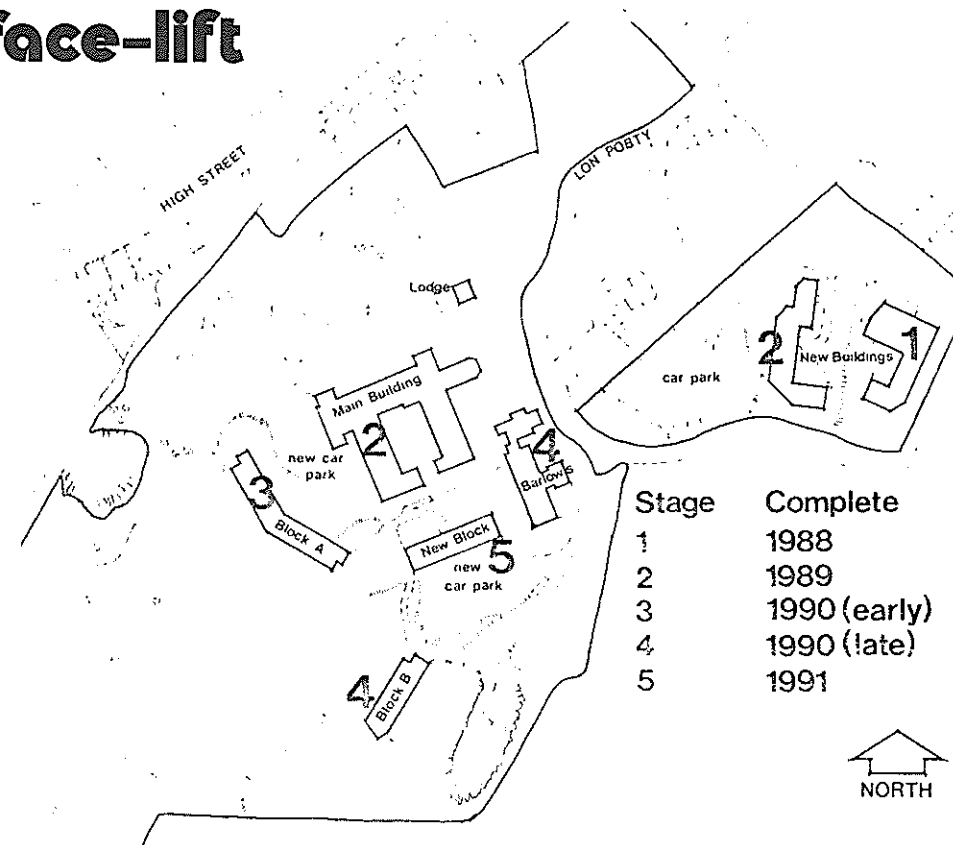
There have been many rumours over future of the St Mary's site. Currently it houses the School of Education (which may be re-located in 1988) and 150 residence places.

Plans have been made in the past to sell the site, which would yield anything from £500,000 to a million. Now the College has determined that it cannot afford the loss of 150 residence places (and probably half the money of a 'sale' would revert to the U.G.C.).

Plans were approved by the College Council on the 4th of March that the existing residences in St Mary's will be developed, and that two new buildings will be constructed on what is presently the car park.

The existing residences are defective in many ways, and requires attention to damp prevention, fire safety, electrical wiring and the provision of wash basin's in each room. Based on the costs incurred with the upgrading of John Morris Jones Hall, each room may cost £2,000.

The total cost, if the entire plan is carried out would be around £2 million. The development, though will be dependent on the on-going rationalisation discussions, both within the College and the University.



big bang hits bangor

U.G.C. CUT COLLEGE FUNDS

On 10th February the College was informed by the University Grants Committee that its grant for 1987-88 will be £11,600,000; a meagre "increase" of 1.8% on the recurrent grant of £11,392,000 for 1986-87. This, effectively, is a cut in funding due to the expected inflation rate of 5-7%.

This, however, is a contrived move by the U.G.C. who want to clear up the "over-funding" of the College by 1990; at this rate of "increase" in funding, the U.G.C. hope to have brought about what it considers to be Bangor's proper level of funding.

In reply to this news, the University Registrar, G.R. Thomas said that "It's information which was not pleasant, but was expected, and we cannot fully assess the cut's impact on the College at the moment," and further added that this "new" cut "should not be regarded as a sinister new development", and he didn't foresee any further drastic cuts.

In November 1986, the finance committee estimated the general account of the College, which predicted a deficit of £426,000 for 1986/7, and one of £933,000 for 1987/8.

In the light of this, and the "new" cuts, the College has had to work hard at finding ways of cutting down its expenditure, and finding finance from other sources apart from the U.G.C., such as the new M.E.N.T.E.C. centre. For if this

deficit would be allowed to accumulate as estimated, then Bangor could find itself in the same financial crisis as Cardiff.

A committee, the "Special Review Group", has been set up to plan the route out of economic ruin by the College.

ECONOMIC DOMINOES: S.U.'S FUTURE.

These new announcements of further cuts to U.C.N.W. has led to further wrangling over allocation of monies by the College authorities. The cuts do not only affect the Academic pursuits and Administration of the College, but also the Students Union, whose Executives are in the process of investigating ways of avoiding financial crisis.

Within this unfruitful economic climate - when the college's funding will effectively diminish over the next four years at least, even the S.U.'s percentage of the recurrent grant may be under threat (currently 1.47%). For the survival of the Union it may be necessary, says the President, Sean McArdle, that other sources of finance must be found, even though they could lead to serious political decisions regarding Union policy being taken.

He said "It looks hopeful that we can ride (the crisis) out and it seems we need a change in attitude to the finance of Student Unionism. It's unfortunate that we may have

to commercialise Students Unionism and consolidate our trading outlets."

This "commercialisation" of the S.U. is a development of what occurred at Salford University, which was hit by a 40% drop in grant in 1981, forcing the S.U. there to scramble to find finance.

This was solved by a policy of "commercialisation" of the S.U. with the Union buying and running two public houses, running a supermarket and even opening a sports shop in the University's sports hall.

Many British S.U.s are looking to Salford as a prototype, and Bangor could be heading towards their policy in the near future, if there is support by the members of the Union.

Not least of the political considerations is that with greater financial independence from the College, and hence the U.G.C., the S.U. could become more politically independent.

FAT FREDDIE'S FUTURE

Fat old Frederick, who's been dieting over the last few months due to the closure of his slobber inducing hangout, may be relieved to know that plans are in hand to re-open the "restaurant", hopefully before the end of 1987.

The S.U. hopes to assume responsibility for running the "culinary rendezvous" of the student population, and will install a catering manager to oversee the proceedings. Regular hygiene checks will be carried out.

ABBEY "HELP" CENTRE SAVED

Fears over the closure of the Abbey Road Centre were allayed this week.

The Centre, highly acclaimed in an otherwise severely critical report by the Health Advisory Service (H.A.S.) of Gwynedd's mental health facilities, was visited by over 12,500 people last year. They were helped by contacting one of the various voluntary bodies, which include Bangor Mind, the Samaritans, and the North Wales Councils on Alcoholism and Marriage guidance.

Funding to maintain the Centre were to be withdrawn by the Welsh Office after March, which put the onus on the Gwynedd County Council and the Gwynedd Health Authority (criticised by the H.A.S. report), to foot the bill of at least £30,000 for the Centre to continue.

Ms Helen Naites, the Centre's organiser, said that official word has been given that the funds required will be provided. Also, a new 'Incest helpline' has been established, to be run with the existing 'Rape crisis' helpline. (phone no. Bangor: 354885).

QUALITY OF 'UNION' LIFE

Some further changes will be occurring soon within the Union, on a more basic level.

The president, Mr. S. McArdle said that the Nat-West bank have agreed to install a cash dispensing machine in the foyer of the Student's Union building, should be in place by the end of the year. Also, six washing machines are on order for the Union.

HUW WILLIAMS

FEATURES/

CENTRAL

AMERICA

WEEK

Fear rules the lives of many millions of people in Central America where military regimes try to stamp out movements that challenge their stranglehold on land, wealth and power.

GUATEMALA

This is the richest Central American country with fertile land and mineral deposits. Yet those in power who control these resources have kept them underdeveloped.

Meanwhile more than 500,000 peasant families have no land. 80% of the children under five are undernourished and over 40% will never reach school age.

Open repression in the cities has diminished but continues at the same level in rural areas, to wipe out popular support for the opposition.

* Orphans number 100,000

* Between 1 million and 1 million people live "displaced" within their own country.

* Amnesty International estimates 100,000 people have been killed since 1960. 38,000 have "disappeared".

EL SALVADOR

Unlike Guatemala there is open civil war with 10,000 guerrillas fighting for social reform against a government army of 30,000.

The wave of terror mounted by the army has devastated the country. Workers, peasants, students, priests, nuns, and lawyers have all been caught up in the violence.

Whilst the repressions of urban death squads have lessened, a new and more destructive terror has appeared with the indiscriminate bombing of the countryside. Years of war have brought much hunger, poverty and suffering. As always the weakest go to the wall: three quarters of the children under five are malnourished and they account for almost half the deaths.

HONDURAS

Honduras is virtually "occupied" by American troops.

Killings, disappearances and illegal detentions are a fact of life. The key targets for repressions are peasants, trade unionists, church workers, students and journalists.

Thousands of refugees from El Salvador have sought safety in Honduras.

* Refugees live in camps under military guard, and some have been shot when they tried to leave.

* 1,500 Guatemalan refugees
10,000 Salvadorean refugees

16th - 24th March

NICARAGUA

In the last six years the women, men and young people of Nicaragua have begun to show who millions in the Third World can challenge poverty disease and oppression.

In return, the United States are funding the "contra" guerrillas, and leading an international economic and diplomatic offensive against Nicaragua.

* CIA supported guerrillas have killed 11,000 people and displace 180,000 others.

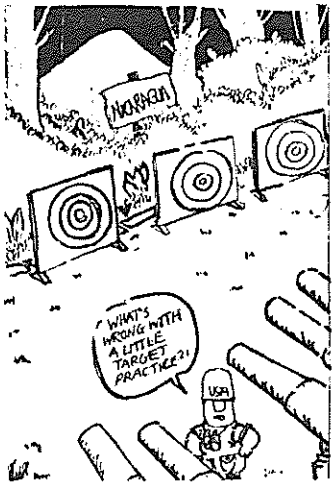
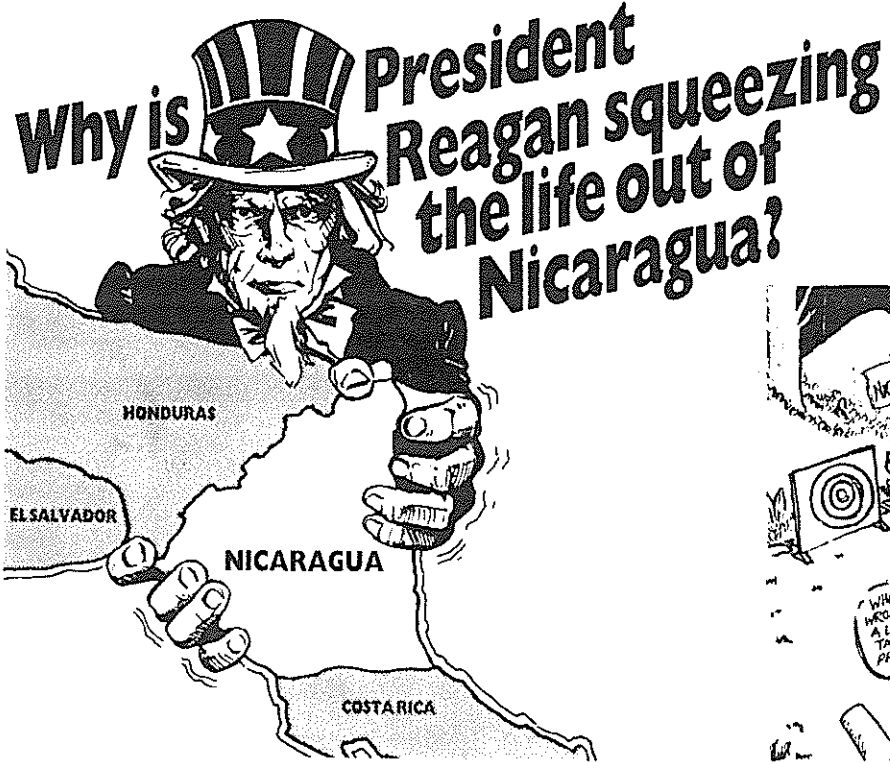
"What is happening now in El Salvador and Guatemala is that people are struggling just to live, to survive".
CHURCH WORKER, EL SALVADOR

CENTRAL AMERICA - AMERICA'S GRAVEYARD

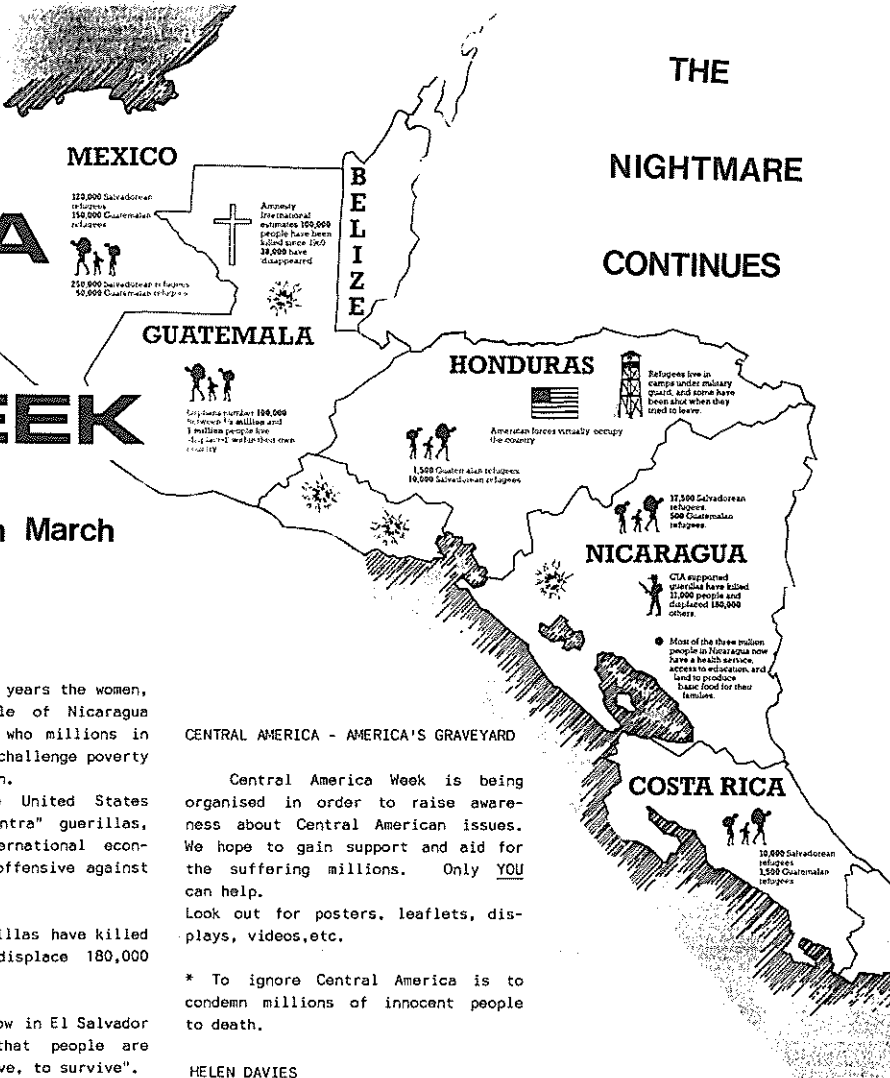
Central America Week is being organised in order to raise awareness about Central American issues. We hope to gain support and aid for the suffering millions. Only YOU can help. Look out for posters, leaflets, displays, videos, etc.

* To ignore Central America is to condemn millions of innocent people to death.

HELEN DAVIES
NICARAGUAN SOLIDARITY GROUP



THE NIGHTMARE CONTINUES



FEATURES/

Sexism?

While reading Emma Clayton's excellent and timely article on sexism in the advertising world, I was aware that it only told half the story. The portrayal of women in advertising (and indeed of men too as I will show later) is only a symptom of the wider attitudes of society.

Advertising companies are in the business of selling a product with as much impact as possible in, say, a page of text or thirty seconds of air-time. The image presented must be easily and quickly recognisable - after all, if the audience/reader has to THINK, it wastes time and time, as the cliché goes, is money. The fact that these images may be offensive or worse is a reflection of the way society thinks. If a product is aimed primarily at men - a car for example (again assuming that society views men as holding the family's purse-strings, so if anyone is buying a car, it will be dad rather than mum), what could be more eye-catching for a white heterosexual male (ie. the

"Mr. Average" of society) than a scantily-clad female? Grab the attention of your market and you're half-way to getting their interest. In a perfect world, where attitudes were properly adjusted, advertising would have a completely different face - we would simply have different (even better) stereotypes.

And on the subject of stereotypes, Ms. Clayton neglected to consider the treatment of men in advertising. While not as potentially harmful as the portrayal of women, men are still held up as objects of ridicule. The husband is always unwilling or incompetent when it comes to jobs round the house. A bowl of cereal will put that right, though if you have a bowl of bran before you tackle any of your DIY jobs, plumbing is a skill you will have to acquire fairly rapidly. Dad is either a clown or a fool - he can't windsurf to save his life, but a bar of chocolate will make it okay as he goes off for another go, with mum and the kids looking on laughing in embarrassment. This does no harm (apart from to the egos of a few incompetent windsurfers and DIYers) but it does use stereotypes to sell products. Men are also being used increasingly as sexual objects, but this is more of a joke than anything else. Take off your dark glasses,

screw up your eyes and women are quivering wrecks, even though your facial expression is due to your being unaccustomed to bright sunlight. And I can never take seriously the advert which uses arty images to sell an expensive perfume, then concludes with an ecstatic male voice saying "Oh the smell of it" in a phoney French accent. Images of semi-naked imbeciles who lounge around in laundrettes while their jeans get torn to shreds by rocks are intended, again, to make women squirm with lust so their men can buy jeans and try to imitate Nick Kamen or Eddie Kidd. They have sadly sold more records than jeans, but have increased the number of men seen in the Ty Golchi on College Road dressed in just their boxer shorts.

Advertising is an insidious business. Forget your scruples and make money is the industry's motto. But even advertising has to bow to the dictates of popular taste and the expectations of the buying market. We must alter our attitudes first before the images we see on TV or in the papers can ever change.

BOB STONE

Stop Press

Election News

Several letters of complaint were given to the President concerning section 2.4.3 of the constitution which states that proposers are not allowed to act as tellers on ballot boxes. A proposer for a C.A. candidate sat on the Reichel ballot box. However, this does not break the constitution as the C.A. election was not a cross campus election. On the day after the election the Exec. subtracted the Reichel ballot box vote and discovered that this did not effect the results of the election.

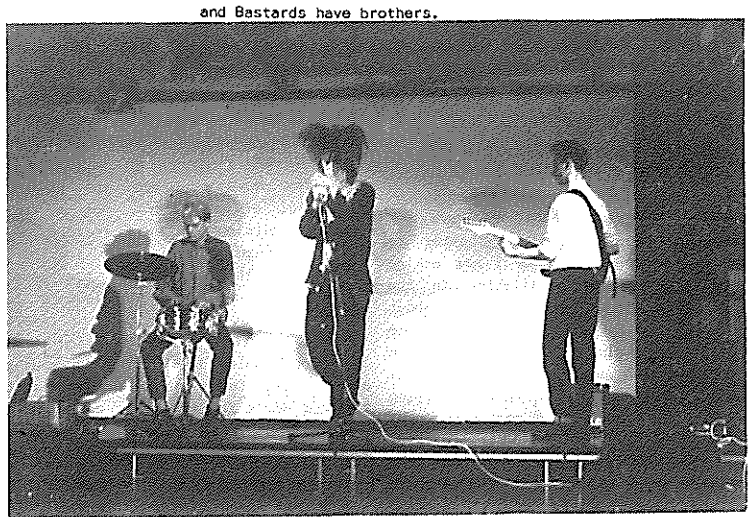
Union Chairperson, Colin Campbell, said, "Elections procedure on this particular instance have not been as tight as possible."

RAG WEEK 1987

Talent Competition contestants Joe 19



Kidnapping yet another one.



BRBS

During Rag Week, as the more adventurous of you will already know, Britain's oldest pirate station, BRBS, was on the air. The station has now been in existence in one form or another since 1948, and managed to present a wider variety of music than any other station (legal or otherwise) on your radios, although it must be said that on this occasion folk music wasn't as evident as in the past.

The week saw some innovations worthy of note; namely the first C.D. broadcast in Wales, multilingualism and the advent of our intrepid roving reporter, "Uncle Scrumples".

Feedback from the listening public was a little sparse, although we did receive a couple of demo-tapes from previously-unheard-of local

bands, namely "Heroes on a Beach" and the excellent "Chwyldro".

Apologies to those of you who tried to listen on Medium-Wave; problems with an ageing transmitter and aerial location meant that the signal was dimly weak. Fear not, plans are afoot to revamp the Medium-Wave service beyond all recognition, funds allowing.

It must be stressed that BRBS cannot function without your support, so any feedback is always welcome, whether it be reception reports, constructive comments on the programmes in general, programme ideas, cash donations or job applications. Send them to us via the "Z" pigeonholes in the Union letter-rack. Thanks for listening - we shall return!

THE MYSTERY D.J.

FEATURES

Women's Week

The arrival of Women's Week brought focus on a variety of issues, with an international emphasis: beginning on Monday, the 23rd of February, with a talk and short film on Women's Struggle and oppression in Chile. I knew next to nothing about the plight of the people of Chile, under the repressive rule of the military regime that has held violent power since it overthrew the government in 1973, let alone the problems facing women there. Widespread hunger and malnutrition, an inadequate health system and homelessness affecting at least 25% of the population, standing against the high percentage of national income spent on arms and military salaries, has created an environment difficult for everyone, but particularly for the women.

Economically poor standards of living coincide with day-to-day violence and extreme repression of human rights, which for women can include being raped by members of the regime whose law fails to recognise this as a crime, and the film shown revealed how women fighting for democracy face humiliation, torture and death. The shots of soldiers spraying women with tear gas before covering them with water to make the gas stick to them, burning their clothes and skin, were both disturbing and infuriating, and the need for international aid - including support from students, women's groups and other stratas besides "government help" - was stressed throughout the film, and the talk afterwards by a representative from Merseyside's Women's Chile Solidarity Committee.

I thought afterwards that if I had spent the hour devoted to the talk/film doing something else I wouldn't know what I do now about the trouble facing ordinary men and women in Chile. The people I asked to come that lunchtime who shrugged their shoulders and decided they had something better to do; or looked at me like I was asking them to sacrifice a lifetime in the guise of a dinner hour; or joked about Chile being some little place somewhere that really had nothing to do with them unless it was part of a curry, still know nothing about a country crying out for people to take more notice of it. The film "Missing", which outlines the struggles faced by both Chileans and foreigners caught up in the turmoil, was shown the following Tuesday evening, and those of you with "something better to do" missed excellent performances from Sissy Spacek and Jack Lemmon. There wasn't a dry eye in Committee Room B!

The attendance on Monday and Tuesday was disappointing, as it seemed to be at most of the talks I went to - with the exception of Wednesday's "Violence Against Women" meeting, where a successful discussion group formed after talks by representatives from Rape Crisis and the Women's Refuge. I think it is important for men to become aware of the difficulties faced by women with regard to the treatment of rape cases in the police station, the law courts and in the press, and the problems concerning them with violence within marriage, which are often neglected by both the victim and the law. Men's

attitudes towards physical violation against women often leans towards blaming them for provoking "biological male urges", whereas rape is an act of violence, and not of sexuality. It would have been interesting to hear some male viewpoints at the discussion, instead of an all-female gathering of ideas, although the talk was well-attended and very informative.

Publicity for all talks was on display throughout the week in the S.U. foyer, yet interest remained fairly low, and there was a definite lack of men at all events.

Unfortunately I was unable to see the speaker on Women in South Africa and as I was busy stamping hands at the door on Wednesday night, I didn't see too much of the three comediennees who came to alleviate the monotony of the Wednesday Night Disco. But I tried to support the week along with other members of the Women's Group. It was just a shame other students were more interested in the evening events in the Main Bar than in any of the daytime talks on aspects of life affecting women.

I thought the week covered a wide variety of issues, and the events I attended were both informative and enjoyable. I hope the concept of an entire week devoted to the stimulation of anti-sexism has stirred some feeling within the depths of the "I-couldn't-care-less-ness" that I see in so many people. An invitation to express reaction to the week emerged in the form of a graffiti board in the foyer, and despite such comments as "If the woman doesn't want sex why does she get married?" underlining "Rape in marriage - make it a crime", I think response has been fairly successful.

The Women's Group are neither a handful of man-haters, nor a cosy knitting circle who swap recipes and discuss shopping lists; it is there to provide the opportunity for women to discuss anything of relevance to their lives as females, and to inform them of important issues affecting them. The cliché which falls from the mouths of so many "opponents" - "Why isn't there a Men's Group?" - is one I have become tired of hearing. The responsibility of setting up a group for men does not fall to women, so I see no reason why we should have to defend the existence of a segregated group, when opportunities lie open for men to do the same.

The same argument presents itself in reply to questioning the need for a Women's Page. I hope to use this page to cover a variety of Women's Issues, including reviews of books and plays with some bearing on the lives of women, and information on areas of contemporary life which I feel are important for our "gentler sex".

If any member of the Women's Group, or anyone who hasn't joined but is interested in writing for the page, wishes to contribute towards this I would be very glad to see them about it (Room 9, Neuadd Ogwen), or if they take articles to the Y SEREN office I will be very grateful.

EMMA CLAYTON

Changes

It was twelve years ago that I remember sitting in this apartment, and it was kinda like the after effects of a war. It was the morning after a big party, and you saw the cigarette butts all piled up, and the crushed beer cans and kinda that stale grass smell in the air - and I was really wondering you know, I used to think I was pretty tough. I was sitting there, and I remember I was sitting on my boyfriend's couch, and I had this - I smoked a cigar, you see I thought that you were really tough if you smoked cigars, and so I was sitting there, and I was really wondering what I was going to do with my life. I mean, what was happening? I didn't even know if there was such a thing as love. I thought love was something that you said to somebody to get something that you wanted. It was cheap, you thought it out - casually. And, it was a few months later, I was sitting in this very different kinda room. It was a little, old dingy coffee house, on the east side of Milwarkey, freak district, you know, Brady Street. And this man was telling me that I was ashamed of things that I dare not tell my parents - I know that I was guilty - and he was telling me that no matter what I had done that I could be pure again, and I could be new - My heart cried out for that ...'

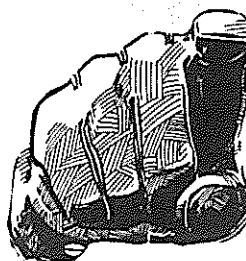
(Wendi's Rap - from the Resurrection Band 'Live Bootleg')

Sometimes the words of other Christians can really hit me - not so much the words, but the feeling behind them. Last week I heard one of my friends tell of how all that had stopped him coming to Jesus earlier was that no-one had told him about God's love. I could hear that this was something he felt very strongly about. Jesus means so much to him that he regrets the times in the past he was without Him, he regrets the times he ignored God's love. (Isaiah 53:3) And I must admit to having the same experience - If only I'd known before. I needed Him so much. The things I'd sunk into, without knowing there was a better way.....

That's what I could identify when Wendi gave her Rap in between some of her songs at Greenbelt Rock Festival. It spoke to my heart - her heart crying out.

But it isn't a sad song I sing! Wendi was made pure and new again, and so was I, and my friend too. Our hearts, souls, every cell of our being cried out to be cleansed, to be made clean by God's love, by what God had done in sending his son to die for us. (John 3:16) Hundreds of years before Jesus' birth, the prophet Isaiah told how 'the Lord made the punishment fall on him, the punishment all of us deserved' (Isaiah 53:6) when I first became a Christian, it seemed such a great mystery, that God's son should have had placed upon him all my guilt and shame when he died on that cross all that time ago. But I knew that even though sometimes God's wisdom seems folly to man (1 Corinthians 1:20-25) it made sense Jesus' death was a sacrifice to bring forgiveness (Isaiah 53:10), and with God, forgiving also means forgetting (Hebrews 10:17). After Jesus rose from the dead, Paul, one of his followers, wrote about God: 'He has reconciled you by Christ's physical body through death to present you holy in his sight, without blemish and free from accusation.' (1 Colossians 1:22). It is the fact that Jesus did come back to life after he had been dead three days, which has proved to his followers that he was able to do what he promised - to open a way up for us, for me to God (Ephesians 3:18), to be made clean again, to be made pure and new. Now I am a new creation (2 Corinthians 5:17). And all I had to do was believe, all I has to do was ask, and let Jesus take it all on board - me, kit and kaboodle - that's why I get emotional when I hear Wendi's Rap. (1 Timothy 1:15)

(For more information contact: The Assemblies of God Pentecostal Church, Princess Road, off College Road, Upper Bangor. Services: Sundays 10.30 am and 6.30 pm)



COMING SOON

LETTERS

Dear Y SEREN,

Every year around the month of February Bangor students eagerly anticipate the arrival Revolving Pictures Competition. Porters on the Ffriddoedd site know only to well how frightening this annual farce can be. "Well you're sitting in your box, minding your own business, watching the 'late night' when suddenly sinister figures wearing masks appear from everywhere, with armfuls of 'Blu-Tac' and photographs." It seems that such is the eagerness to impress in this event that not even Bangor's darkest places are safe.

In fact I couldn't help reflecting, with an AIDS poster in front of me, a Welfare picture on my right and several Nightline stickers dotted around the bowl; about the kind of world we actual live in. Certainly it's that time for reflection, but why not Bird Club posters or something similar to cheer us up a bit. Bangor's the only place where a student can go to the toilet and come out again depressed. That aside - now down to the serious business of judging this years entries.

Starting with the least silly: Isabelle Huddell, James Francis and Martin Purcell. The judges felt they were all too sensible, ie not really entering into the spirit of things.

Not far in front was Chris Hughes who made a valiant attempt to look gormless, whilst Mike Dunn showed us all what a super set of teeth he has.

Special Commendations go to Tina Hergest who had the novel idea of having her picture taken balancing on a wall in a force ten hurricane and John Farrell who decided his normal jumpers were just not silly enough and opted for one covered in flowers - well done John. The judges decided unanimously to give this years first prize to Jon Teppet. Jon knew his picture looked far too boring to stand any real chance of winning, so he had them all put up upside down. Full marks to Jon, and your prize is a kiss, if you can find (and then still want one!)

Finally I would like to wish all those who entered this year's competition well. Those who weren't successful should not be disheartened as there's always next year!

Jack Skinner

Dear Y SEREN

Many thanks, yet again, to the Labour Group for setting the record straight. I consider myself well and truly told. However, I was a little concerned that the letter, although signed by the Labour Group, was written entirely in the first person singular.

Does this mean that we can take the latter as the opinions of one member of that group (and if so, why hide behind your group's name?), or, and this is a truly shocking thought, are we to believe that the most active group in the Union has ONLY ONE MEMBER?

I eagerly await enlightenment on this one.

Yours
BOB STONE

Dear Y SEREN,

I thought I'd bring you up-to-date on everything that's going on in the Union. It's funny what happens when Merrydown meetings are on in the building.

Our illustrious President attended his first ever meeting and discovered the evils of drinking to excess. (But that's not hard for him as he can't take his booze). He suffered a severe stomach upset at approx 11.00am in his office sink, which explained why no-one was allowed to the sink the day after. He then felt a little tired and layed down for a rest. The next thing he remembers is hearing the birds welcoming in a new day (5.00am).

On that same evening the Gen Sec could be found in a dark corner of the Union hpoing that no-one would talk to her. As she was feeling a little under the weather

You know that horrible time when the bubble gum machine in the toilet eats your last 50p and you don't really want to go and make babies, well a prominent figure in the Athletic Union found a solution. He emptied the welfare office's contraceptive box of jolly bags. This was after a close friend of his explained that pessaries were of limited use as they exploded.

Did you also know that the welfare office has been known to have late night counselling sessions. Well that's all I can assume that was happening! I can't think of anything else that would be going on at that time of night.

Well Mr 'Big Fat Cigar Belly' Editor how's life in the Y Seren? Got any more cases of libel being brought against you this week?

Well what about the Conservative Students meeting? The guest speaker Mr. Fisher Jones (or should that be Fisher Price?) When asked about the loans replied 'What loans?' Now I ask you what do these so-called politically motivated people actually think and talk about? The latest Dinky toy that good old Ronny 'The President brain is missing' Reagan has just bought.

Name withheld

DEAR Y SEREN

I am just writing to thank all of the victims of the Kidnap Squad for their willing (or conversely, not so willing) co-operation.

The Kidnap Squad have decided to name the "Victim of the Week", and to publicly thank him for his generous support.

The "Victim of the Week" was Mr Alan Wadden. (For those who are unaware, Mr Wadden is the warden of Neuadd Rathbone). He was, very understandably, concerned for the well-being of his charges. However, once he realised that the Kidnap Squad had come for him, he was very sporting. He allowed himself to an unfamiliar location, and before we departed, he made a very generous donation to Rag funds.

Our thanks to him.
Love 'n' Rainbows
THE MYSTERY PANDA

Dear Y SEREN

At the last General Meeting of the Students Union on Thursday 26th February, Neil Thomas (Labour Group) in his proposal of the emergency motion censuring the Executive of the Union for failing to organise any Bangor Student Union presence at a demonstration against loans, took it upon himself to mention the fact that I, in a letter printed in the last issue of Y SEREN, spoke out against a student loans system (a policy or even proposed policy does not exist). He used my position and comment to further his argument, in the proposal, for organised strikes, demonstrations and other forms of similar protest.

I strongly object to this for it gives the impression that I am in favour of such forms of protest, when in fact my letter (which I suggest he reads again - more carefully) expressed the view that they invariably do not achieve anything except the wasting of people's time and a corresponding bad press (if indeed there is any press coverage), which does nothing either to enhance the general impression of students both nationally and locally, or to further the argument / point of view in question.

If his argument cannot support itself on its own merit, it is clearly an argument not worth forwarding.

I dislike 'choice' editing and would like to ask Mr Thomas to refrain from engaging in this pastime in any future comments he may wish to make.

Sincerely yours

GARETH JONES

Chairman Clwyd North-West Young Conservatives

Dear Y Seren,

Believe it or not, I am writing in your defence.

A letter appeared in your last letter which I can only describe as the most offensive and spiteful document Y Seren has yet published. I refer of course to Mr.D.Perry's overtly self-indulgent criticism of your editorial policy.

Merely because a few contributions have been rejected by your editor(s) he chooses to censure the paper as a whole in terms which I will not condescend to repeat. How anyone let alone a supposed Sports Editor, can criticize youn for having no 'journalistic principles' and then go on to write malicious four letter words invective out of sheer pique is beyond my comprehension.

From the 'style' of the letter, I guess the writer to be American but I would hesitate to burden any nation with someone who prefers to be known as 'Spud'. Those readers who noticed Mr.Perry's egocentric observations on the U.C.N.W. basketball team will know exactly what I mean here.

Frankly, I am surprised you published his letter at all. I can only assume you did so to illustrate the dangers of becoming a foul-mouthed would-be journalist who cannot stand to be on the other side of the editorial scissors.

Yours sincerely,
Gary Pettecrew

Dear Y SEREN

In reference to the article "Red Stripe Blues", though you may have investigated the matter thoroughly, you have not printed all the facts.

The statement that "it is now beyond doubt that the Ents crew received £419.91 worth of alcohol on the evening of the Christmas Ball" is completely misleading.

The list printed in the article claims that £291.45 worth of drinks was issued. This was seen on the night by the Gen Sec and the Ents Sec and rejected by both of them. The Ents crew allocation was then reduced to give a figure of £128.46 and the bands allocation remained at £78.01. This corresponds to 2 - 3 pints per person in the Ents crew, not unreasonable for a hard day's work (18 hours 9 a.m. - 3 a.m.).

This is the only drink which any of the Ents crew saw. Your article implies wrongly that the Ents crew received over 10 pints each, a ludicrous suggestion.

The whereabouts of the excess drinks (£291.45 worth) remains a mystery and we can only speculate upon the matter.

STEPHEN CROSS

SHAUN GOODE

Dear Y Seren,

My applause goes out to Bangor Rag Soc. for organizing a most entertaining week. However, a little constructive criticism concerning the multi-legged pub-crawl I feel is in order. Half a pint in each pub-wouldn't even induce the call of nature. Eight pubs! - The Ayatollah would still be standing! What an embarrassment, U.C.N.W. students on the piss on five pints - something I wouldn't write home about. It was good to see a few empty pint glasses on the tables where competitors had sat, obviously their moral conscience had pricked them. Has the Union been infiltrated by Alcoholics Anonymous, or are it's members a bunch of teatotal, puritanical wankers!

As for the solution to a piss-heads dilemma - Ten pubs with a pint in each. If women feel this too much, then they can go on shorts or halves, but I'm sure they too would feel embarrassed.

Come on U.C.N.W., fly the flag in it's true colours.

Yours,
Piss-Ed.

Dear Y SEREN

I would like to congratulate all the people involved in Rag Week, especially as the funds raised are going to such a worthy cause. On behalf of many Reicheletes, there was concern about the judging of the talent night. I am referring to the "Jo 19" group whose performance was enjoyed by many with a standing ovation and an applause that rang throughout the Union building. Well done Jo, Simon and Andre; in many people's minds you were tops. We loved you even though the judges didn't.

FROM A BESOITTED "JO 19" FAN

ARTS

Arts
Editorial

Thanks to John Doona for his letter concerning Y SEREN's lack of coverage of Rostra's last two productions. There is no editorial policy of censorship towards Rostra. Somebody was asked to review "Erpingham Camp" by our previous Arts Editor, but she was unable to attend and did not arrange for anyone to take her place. I asked someone who had seen the play to submit a review, but this did not materialise either. By that time the paper had already gone to the printers.

We have a limited number of people working for Y SEREN. Our staff cannot be everywhere at once. However, we do apologise for this apparent disregard towards your group's excellent efforts, and look forward to reviewing your next major production.

On a different note I'd like to use this space to welcome students to come and write for Y SEREN. If you're working for the Arts pages you can get in free to band nights in the Union and we receive complimentary tickets from Theatr Gwynedd. Cushty number, eh? Come up to the office and put your name down on the events list.

A. FFRENCH

poetry corner.

WORLDS APART

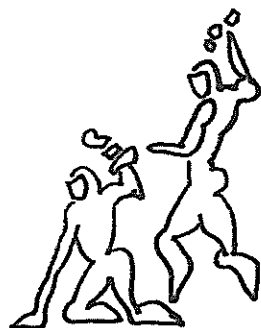
There's a distance
Between our worlds
Meeting only in conflict
Calling each, the other's lies
People bowed in failure
What is real?
Above our heads
Spiralling birds fly
Black on a grey sky
Echoing calls
In distance muted
Hovering
Quiet on these nights

The birds will not sing
But our lines are drawn
With due regard
For customary form
Our warriors waiting.

There's a distance
Between the words
Meeting only on closure
Wrapped up in truth and lies
Knowledge and the mystic
What is real?
From our heads
Through pens our words fly
Black on white pages
Echoing annals
Of discredited sages
Only again to fall
Another story
Much like those before
Marched out
At the dead of night
By eager eyed boys
On borrowed typewriters
(I close the book.)

BARRY KAYE

Please bring your poems into Y SEREN
- anything mellow will be appreciated.

ACCIDENTAL
DEATHOF AN
ANARCHIST.

Dermot O'Brien's production of Fo's "Accidental Death" was pacy, assured, inventive, original, shocking, thought-provoking and a great night out for a mere quid.

Paul Merrick led the cast as the maniac and maintained the swift pace of the play, coping admirably with several tortologous speeches uttered with great speed and clarity and accompanied by appropriate facial expressions. One of the maniac's fetishes was to impersonate judges, forensics experts, etc.; therefore Merrick's versatility was tested to the full.

Donna Jones played the constable - a small and relatively insignificant part, but she managed to bring it to life, making it both funny and interesting; acting even when she was not in the forefront of the action.

John Webb and Mark Bentley complemented each other in their parts as the Superintendent and Inspector Pissani. The menacing Superintendent often looking for a stooge to take the blame for his misdemeanours, finds it in the Inspector Pissani.

The rewriting of events was a major theme of the play. The corrupt police officers rewrote their version of events concerning the night they pushed the anarchist out

of the window. This was paralleled by a rewriting of the script. Photos of Margaret Thatcher, James Anderton and Viscount Whitelaw gave the graffiti-covered set a contemporary air and it was evident that the script had been brought up to date to give it extra relevance and bite. The riots of Toxteth, Brixton and Broadwater Farm were referred to and Cecil Parkinson was advised to take his government's advice and use a condom. The revised script was occasionally interrupted by pseudo-ad-libbing. John Dryden, who played the harassed and victimised Inspector Bertozzo, delighted girls in the front row by asking them from behind his eyepatch, "Excuse me, are you in hall or would you like to go back to my place?"

The play kept the audience's interest because of its pace and its constant variety. The maniac took on a number of parts although he was best as the dapper investigator asking the corrupt fascist policemen to make themselves accountable for their actions on the night of defenestration. On occasions the play erupted into delicious flashes of farce, the whole cast wallowing in nostalgic memories of their train sets, John Webb giving an admirable impression of Wolfie Smith, or Mark Bentley rehearsing the line "I've just had a phone call from Rome" in a number of interesting ways.

Maria Feletti, the pushy journalist, was played by Jackie McKenzie. She continued to quiz the policemen on their misdemeanours, although if she'd been working for Y SEREN she would have taken a lot more notes and she would have been even more aggressive.

The incongruous mixture of comedy and violence in "Accidental Death" was very effective and brought home the police force's lack of accountability for their actions. The revision of Dario Fo's script gave the play's themes extra power and contemporary relevance. An accomplished, adventurous and purposeful production.

A. FFRENCH

ARTS



THE PRIMITIVES

On Tuesday 24th February the Mandela Bar was used for what, in my opinion, was the best gig this term. "The Primitives" and the support group "The Screaming Trees" provided a night to remember with great danceable tunes coming from each band.

"The Screaming Trees" are a duo from Rotherham and have been together for about three years now, and have produced two singles so far, "Release" and "Beaten by the Ugly Stick". They say their only influence is "Red Lorry Yellow Lorry" and that comes out in the punchy lyrics and heavy overdriven guitar which combine with the drum machine exceedingly well. One thing the lads did say to me was that the atmosphere was fantastic at Bangor when compared to even the warehouse at Leeds. All I can say to that is it takes a good band to make a fantastic atmosphere and "The Screaming Trees" are good.

After being well and truly warmed up by the support and with a positive plethora of Primitives t-shirts moving furtively around the

dance floor, the main attraction began. "The Primitives", consisting of Tracey - vocals, Steve - bass, Paul - guitar and Peter - drums, produced a set that had everyone dancing and shouting for more. I have never seen the dance floor so packed for a mid-week gig, and everyone who was there enjoyed it.

They played nearly every one of their songs, including the excellent "Thru the Flowers" and the almost perfect love song "Found a Way to the Sun". This band has to go far: they are so good and in Paul have a great composer of melodies and words. Again, "The Primitives" echoed the support band's praise of Bangor, saying how electric the atmosphere had been and also adding the fact that it was definitely the best gig they had done so far. The band are releasing an album in October, which is sure to get into the charts and top the indie charts for some time. All I can say is buy it because it's worth it.

DANIAN WORSLEY

Mighty Mighty

Mighty Mighty came to the Rag Ball and provided the small crowd with some excellent tunes. The band dislike the wimp-rock tag - they are reluctant to be bracketed with The Housemartins, the Chesterfield 8, etc. although their lack of image, their jingle-jangle guitars, Hugh's deep, sensuous vocals and their catchy chorus brought early Orange Juice and the Monochrome Set firmly to mind.

The songwriter Mick Geoghagan confessed that he did rather like Orange Juice and that sort of thing although the band as a whole were keen to assert that they could rock with the best of them. Hugh has friends in high places. He knows Robert of the Go-Betweens and Lawrence from Felt. Can't be bad.

I asked Mick about the lyrics to his songs and whether people were intended to respond seriously to the tongue-in-cheek Morrissey-like "I'm never going to get the girl" type song. He parried this by pointing out to me that some of their songs did have serious implications.

"Settle down" contains two points of view on feminism, one from a middle-class woman and the other from a working-class girl; and "Love's so strong" can be seen as a song about "Thatcherite" Britain.

The members of the band have all recently given up their jobs to go on the road, and are now making records on the Chapter 22 label. They don't expect to make a great deal of money at the moment. They hope first to distribute as many records as possible and make a name for themselves. Their next single was in their set at the Ball - "Built like a car" - another tongue-in-cheek number, and they hope to have an LP out some time in the summer.

"Is there anyone out there?" - the group's second single - was the best song of the evening. I'm off to Cob to order it, for although Mick said the song was basically about loneliness, the cheery chorus was extremely uplifting. Mighty Mighty make happy music with mock-serious implications. I'm looking forward to seeing them again.

A. FFRENCH

WORLD PARTY



After four hours of monotonous rap music, the six members of World Party finally arrived on stage. As to what they opened with, well, your guess is as good as mine (they didn't say what it was), it was good anyway. Their second song, "Trouble Down There" with its jazzy keyboards made me realise just how tight the band actually were. Very professional - yeah, they were really bop. You may have heard the next song, "Ship Of Fools" on "Whistle Test" the other week, or may even have heard it on the radio (gosh) - apparently it was, at some stage, in the Top 75 Singles (around number 60 I think - there you go boys, fame at last!). Anyway, it's well worth checking out, nice bluesy intro, and some nice vocal harmonies (does that make me sound pretentious - ah shit!). Later songs included a cover of John Lennon's "Nobody Told Me (There'd Be Days Like This)". "The Little Man Within" - which incited about twenty people to dance (after 3 broke the ice!); the song of the same name, "World Party", was followed by "This Is Your World" (well into these "World" titles aren't they?) which persuaded everyone who wasn't already dancing, to get on down and boogie.

A cover version of "Private Revolution" would have ended the set if the screams for "more" hadn't brought them back for a single encore.

"World Groove" (crazy man). Still the crowd screamed for more, unfortunately to no avail. Personally I think the band evoked the strongest reaction in the crowd that I've seen since I've been in Bangor (a matter of months) and I, personally, was disappointed to see a band leave when a crowd was clearly not satisfied. I was further disappointed to be unable to interview the band after the gig - our readership mustn't be large enough.

Well, anyway, I'd like to take this opportunity to say well done to the Ents committee who've finally pulled their finger out and got a lot of decent bands to please a wide cross-section of tastes (Michelle Shocked, The Primitives, Girlschool, World Party, and of course The Blubs.) - not bad, all fairly well-known bands, which is good considering the size of Bangor and its potential audience. If anyone would like to see bigger bands at Bangor then you'll have to support the ones we get - they don't come for a fiver and a copy of Y SEREN you know (honestly). So, well done Ents committee! Also a strong "well done" to everyone buying Anthrax's single "I am the law" (currently 32 in the charts) - it's excellent stuff!

RICHARD SPROSTON

Local Band Night

Encouraging news for local band enthusiasts: the triple bill of Y Cyrrf, The Lungs and The Strand proved very successful on Sunday night. The Chairman of the Local Band Support Group, Pete Townsend, was quoted to have said "Yes" followed by "It went well", which sums up the general attitude of most people leaving the Union afterwards. Led Zeppelin were playing next door but that didn't stop a large crowd turning up. Even considering it wasn't held on an orthodox socialising night. Tsk.... and we're told there's no demand for local bands.

The evening started with the professional pitter patter of the Strand. I could almost believe their polished version of "Every breath you take". But I've seen Mr Sheen

do better. The Lungs were on next, producing a rousing set despite an aggressive microphone. "The Capital" and "The girl with a space in her head" proving to have an effect on me. Y Cyrrf finished the night off with their characteristic brand of pogo jive. Their catchy blend of spirited rock even lured an excitable audience onto the dancefloor. Fun. Fun. Fun. Come again folks...such pricebashing value is hard to find.

And to think, the people in the street missed it. Tell them next time.

THE VEGAN DRUMSTICK

CPGC ADRAIN DRAMA DRAMA DEPT UCNW

The Bundle

GanBy EDWARD BOND

Y STIWDIO THE STUDIO

MAWRTH 19-22 MARCH 19-22 1987

7-30 £1-50

SODA - The story so far

At the end of last term a group of 20 students decided to form a new society - SODA (Student Operatic and Dramatic Association). Since then its membership has grown to 50. The aim of the society is to promote musical works ranging from "The Rocky Horror Show" to light opera! The society has not attached itself to any particular composer so it can be flexible and responsive to the needs of students and the public.

The membership is open to any students who feel they have something to contribute by performing, or by helping backstage, or on the managerial side. The society is run entirely by students and the emphasis is on light-hearted enjoyment.

The forthcoming production is "H.M.S. Pinafore" which will be per-

formed at John Phillips Hall, Normal College, College Road on 19th, 20th and 21st March. The show starts at 7.30p.m. and tickets are £2.

The work includes many famous tunes including "I'm called Little Buttercup", "For he is an Englishman", "Never mind the why and wherefore" and "When I was a lad". It also includes two songs popularised by television advertisements, namely: "I am the captain of the Pinafore" and "We sail the ocean blue".

The Performance

Councillor Keith Marshall will be attending in his official capacity as Mayor, as guest of honour on Friday 20th to mark the society's inaugural production.

We hope that everyone will enjoy and support this new venture.

E WITHELD

SODA YN CYFLWYNO PRESENTE

Nos Iau Thursday 19th
Nos Wener Friday 20th
Nos Sadwrn Saturday 21st

MARCH 7-30pm

H.M.S. Pinafore
Gan / By GILBERT & SULLIVAN

NGHOLEG Y NORMAL NEUADD JOHN PHILLIPS
NORMAL COLLEGE NEUADD JOHN PHILLIPS

Tocynnau £2 Tickets

A cartoon illustration of a worm wearing glasses, sitting inside an open book. The book's cover has the title 'THE BOOK WORM' and the author's name 'Anthea Bell' written on it.

Bob Stone

exchange Implicate Technology skills
for money'....this book is yours for

HOW WILLIAMS

50 % DISCOUNT IN SALES SHOP

EMMA CLAYTON

SCIENCE

WISPS

Editorial

Hello Everyone,
This week the Science section has achieved yet another first - the first time we've had three pages. However, I need your help if we are going to continue to produce the quality newspaper (hum!) that we do. I don't care what you write on as long as it is scientific or technological. If you write it, we'll print it (at the discretion of the editorial board) and let 'Y Seren' work for you. If something is going

on in your Department or Society let us know. Articles can be put in the 'Y Seren' pigeon hole by the Porter's lodge in the Union. We also need more staff to run your paper, so come along now.

On a completely different subject, I'd like to thank Barry Keye for his professional, humorous and well informed contributions since the science section began. He has been the most productive contributor to this section since it began, and we'll all miss his style and wit.
Joe Creed.

MENTEC

Many people have seen the building calling itself the Menai Technology Enterprise Centre, in Bangor, near the computer laboratories in Ffordd Deiniol. However, not many people know what it's for.

The building was opened on the 30th January 1987 by Mr. Wyn Roberts, the Welsh under-secretary for state. At a cost of roughly £1m, it is a new initiative by University College North Wales, Gwynedd County Council and Arfon Borough Council. UCNW supplied the land and G.C.C. and A.B.C. supplied 25% of the construction costs and the Welsh Office, through its Urban Programme provided the other 75% of costs.

The aim of Mentec is to "provide a modern, dynamic, well-served environment for the incubation and growth of new technology enterprises". It does this by offering access to college facilities and expertise within the Science Faculty of UCNW and support in management, marketing, financial and technical matters.

Companies locating at Mentec would collaborate with UCNW to negotiate on suitable prices for help with research and development.

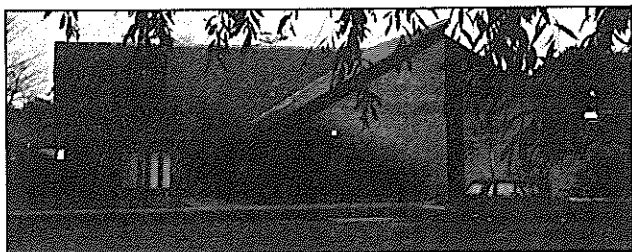
The aim of Mentec is therefore to transfer scientific expertise from the academic to the industrial world.

It also helps with the administration of companies locating there, as well as guiding such companies through the increasingly complex web of local and central government loans, grants and other initiatives.

Mentec boasts six offices and purpose built laboratories for research and development projects. Success is difficult to gauge at this stage, though one company, Orbit Research Ltd. (and subsidiary of Orbit Scientific Ltd.) has already located here. It is an electronics firm specialising in Microelectronics for the Automotive and Avionics industries, and is also increasingly involved in Bioelectronics. A field yet to be fully exploited. Industrial Development Bangor (UCNW) Ltd. was an important factor in Orbit's location here. Another industry, whose name was withheld from me at this stage, is also on the verge of locating in Mentec and synthesises ultrafine chemicals for use by "special" customers (e.g. Space agencies, defence, etc.).

If Mentec takes off and there is much interest in increasing the size of Mentec, then it is possible that the building could be the administrative centre for a 'Scientific Park' scheme in Bangor. It's a long way off at the moment, though in the present climate, almost anything that brings money into UCNW has to be good.

Joe Creed.



! This message brought to you by Chung Yumura (Interstellar) UnLtd. (Taking the hiss out of deep space communication).

! DECODING IN PROGRESS
! WAIT PLEASE.....

* FROM : Cmdr. Tripus/RB250/
"Bethesda"
* TO : AN
* TO : Anyone still interested
* MESSAGE READS :
Hi,

As you can see, circumstances have required me to be elsewhere for a short while.

So here I am, aboard battleship Bethesda, in parking orbit as far from Bangor as possible (roll over Ronald Biggs...) Perhaps unsurprisingly it is raining, one of the hazards of booking a flight with a bunch of aquatic aliens. Still the view is better here than that at the 'Scrubs' (counting the advantages - that makes one).

Counting the disadvantages, well for one hyperspace does worse things for my stomach than a refectory meal, and for another, this ship is soggier than Bangor - in the winter!

Misery, misery why oh why didn't I read something as interesting (and worthless) as "Ancient Persian Carpet Weaving? (changes in style to 1000BC)"

If only I hadn't been so dead set on doing something 'useful', I wouldn't now be up to my knees in slimy XT's.

How like a Teabag life is, pristine, crisp and white, until you use it. Then Oh heavens what an 'orrible mess....

**HYPERSPACE IN TWO MINUTES
STANDBY**

(Groan!)

Best get through the rest of this quickly, on behalf of all 'Y Seren' staff, Union Hacks, academics, fluffy toys etc. I'd like to wish you all the best, NOTE I don't wish you all the best, if personal experience is anything to go by, you'd be better off hoping that you fail...Still some of you might actually desire the recycled bog paper, and this is my last chance to say 'I hope you get it'.

FIELD ENGAGED.....30 SECONDS TO JUMP

TRIPUS sends love and slobbery kisses...

BLEAUCHHHHHHH.....

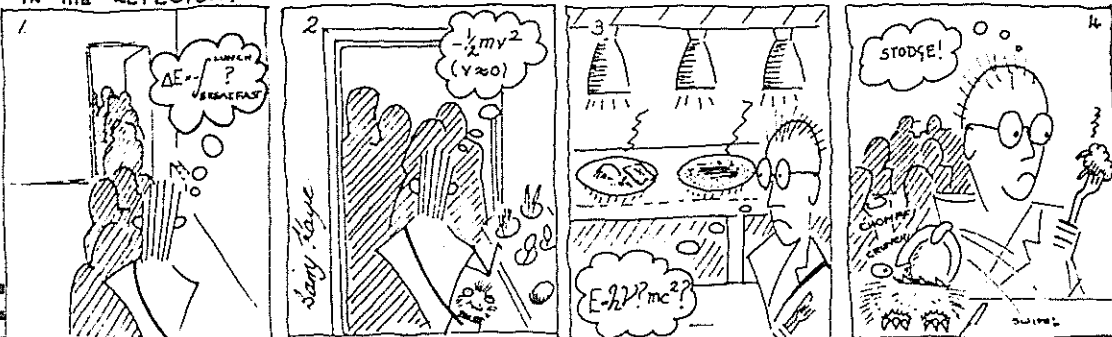
! ?

! CARRIER FREQUENCY LOST

! MESSAGE TERMINATES AT 1/3/87.

THE CHEMISTRY SET. BY BARRY

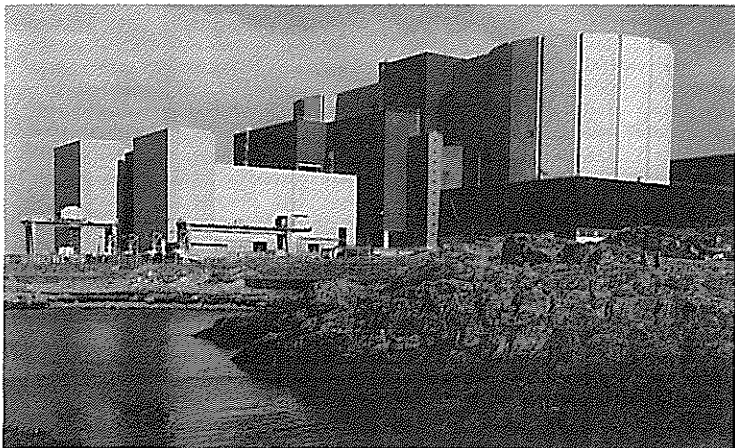
"IN THE REFECTORY"



SCIENCE

THE WYLFA STORY

by Joe Creed and Cherry Gilesie



HOW WYLFA WORKS

The Central Electricity Generating Board applied for consent to build a nuclear power station at Wylfa in 1960. A Public Inquiry was held in May/June 1961 and ministerial consent was given later that year.

Wylfa was an ideal site for two, vital control rods. This core is surrounded by a neutron shield - the inner shield. Outside this is the Boiler system, with associated gas systems. The weight of this is supported by there is an ample supply of water, structural support columns and a grid an important resource as Wylfa, like the other first-generation reactors, needs about 241 million litres an hour - twice as much for cooling than do conventional stations.

The main reactor building is 168m long, 70m wide and 55m high. The two other main buildings are the turbine house: 269m long, 27.4m wide and 18m high, and the indoor transmission sub-station 174m long, 134m wide and 21m high.

The C.E.G.B. claims that Wylfa is the most technically advanced of the first generation nuclear power stations developed from the Calder Hall type reactors, as many design changes were made, with increases in time the can metal starts to fatigue, physical dimensions, power output and gas cooling pressure (28 bar).

At Wylfa the pressure containment and biological shielding of the reactor is achieved by thick concrete vessels,

pre-stressed by tensionin-cables which surround the reactor, gas coolant and boiler systems. The inner surface has a 19 millimeter steel lining to maintain gas pressure.

There is a core made of a vertical cylinder of graphite. Fuel channels run vertically into this, as do the control rods. This core is surrounded by a neutron shield - the inner shield. Outside this is the Boiler system, with associated gas systems. The weight of this is supported by there is an ample supply of water, structural support columns and a grid an important resource as Wylfa, like the other first-generation reactors, needs about 241 million litres an hour - twice as much for cooling than do conventional stations.

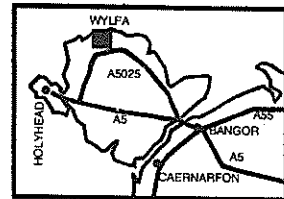
There are 6156 vertical fuel channels in each reactor, each taking 8 fuel rods, stacked one upon the other. Each Magnox fuel can is 1.1m long and contains a 28mm diameter fuel rod. Each can weighs 14 kilograms. The cans for the fuel rods are made of high, and the indoor transmission sub-station 174m long, 134m wide and 21m high.

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At Wylfa the pressure containment and biological shielding of the reactor is achieved by thick concrete vessels,

New fuel is delivered to Wylfa by train from B.N.F.L.'s Springfield manufacturing works in Preston. Fuel rods are changed continuously. Access is via standpipe penetrations into the core and each standpipe serves 8 separate fuel channels. Two fuelling machines change the fuel rods. The spent fuel is then taken to the point of access to the Dry Irradiated Fuel Store. The used fuel is loaded into storage tubes filled with CO2 where they stay to cool for about three months. The rods are then loaded into transporting flasks and sent to Sellafield for Reprocessing.

The whole core is bathed in carbon dioxide cooling gas which is blown up through the core, picking up heat, so that it is at a constant 360°C when leaving the core. It is then directed downward through the boilers where it gives its heat up to water (in a different, closed system). The CO2 is pumped by 8 gas circulators (4 per reactor), each driven by a 14 megawatt induction motor at 1000rpm. Each circulator is a single stage axial flow gas blower with an oil seal on the rotating shaft to stop coolant escape. The amount of coolant gas can be controlled, depending on the current output of the reactor.



Water is pumped into the elements of the boiler and rises upward through it. It is super heated by the coolant and, as steam, is discharged to the turbines. The tubular elements in each boiler amount to 280,000 square metres for each reactor, over which heat exchange takes place, and they are made of mild steel with finning to aid heat exchange. The water used has to be

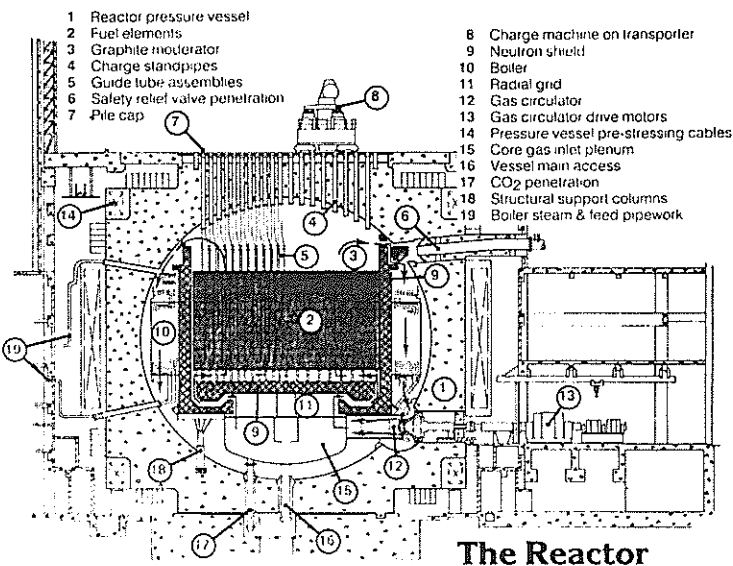
of very high quality and is treated with ion exchange, deaeration and magnetic filters are used. Any leak in the tubular elements can be detected by rising water vapour pressure and the relevant pipe sealed off.

High pressure steam passes into a double flow, high pressure turbine and then into a separator which removes water droplets from the steam (thus improving quality). This is then fed through 3 low pressure turbines and on into the condenser. This recondenses the water in the steam from the turbines for re-use, and is achieved by nearly 200 miles of tubing per condenser and sea water, taken from 150 metres out and warmed by 10°C during its cycle. It is then pumped back out to sea. Before being used, the sea water must be treated with ferrous sulphate to oxidise the inside of the condensing tubes and allow better heat exchange, and, between the months of May and September chlorine is added to stop muscle larvae from making a home in the warm, protected condensing tubes.

Control is by centralised computers. Two (relatively outdated and slow) Marconi TAC computers control information from plant data scanners to two CAMAC interfaces. A PDP 11/34 in each interface processes data and relays it to various display systems. If the TAC fails another standby computer is automatically switched on. Conventional control loops are used except with burst can detection, in which case the reactor is shut down automatically if the safety circuits detect critical values of significant reactor parameters have been exceeded. The safety circuits hold three guard lines open. When two of the three are closed, then electrical supplies holding the control rods up are cut and the rods drop into the core by gravity and stop the reactor.

Energy produced is linked by a 400KV line 22 miles long to Pentir substation near Bangor.

The power station is protected from power cut by emergency electrical supplies. 2 sets of batteries supply 440V each to cover immediate needs while 5 Rolls Royce turbine engines running on aviation fuel are started.



ARROWS SHOW THE FLOW OF CARBON DIOXIDE THROUGH REACTOR AND BOILERS

NUCLEAR SAFETY

Have you ever wondered what levels of safety the C.E.G.B. employ in nuclear power stations? Do people really grow extra limbs? Well contrary to popular belief this doesn't happen.

The C.E.G.B. nuclear power stations are run within international regulations and have a certain ratio of staff devoted to safety matters (one in ten employees). They continually measure radioactivity within 25 miles of the power station, and constantly monitor the levels inside the plant. Whilst visiting Wylfa power station on Anglesey recently, I took with me a Geiger counter. The C.E.G.B. provided a safety officer equipped. Together we made measurements which corresponded exactly. The maximum dosage I experienced was 15 counts/second which is negligible when compared

to a background count of 2 per second.

Although at Wylfa they do not have a Marine research department, they do not discourage amateur divers from operating off shore, but welcome the findings that they make.

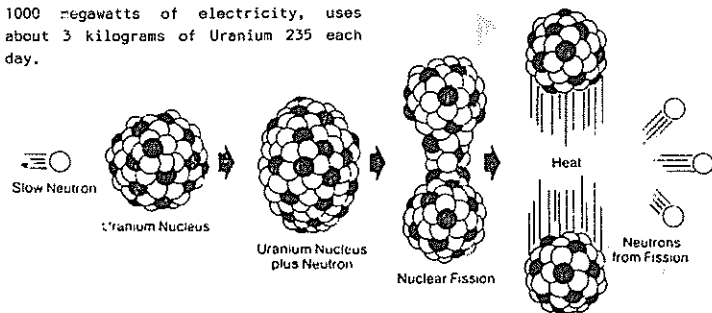
Whilst talking to a plant engineer we were told that the reactor was surrounded by 12 feet of concrete. There is not, however, a containment structure to either stop or leakage that may occur, or safeguard against a conventional warfare attack terrorist or otherwise. Twelve feet of concrete never stopped the RAF from destroying the submarine pens of St. Nazaire in world war two, did it!

Still, all things considered, the safety at Wylfa was seen to be of a very high standard and has made this reporter sleep a lot better at night.

SCIENCE

The Theory of Nuclear Power.

Wylfa and the other first generation reactors use the fission of Uranium 235, a radioactive isotope whose nucleus spontaneously splits releasing neutrons. These neutrons, travelling very fast, hit other Uranium nuclei and each again produces neutrons which hit other nuclei. Thus a chain reaction occurs. When enough of this isotope is brought together in a carefully engineered assembly, called a pile, the controlled fission reaction proceeds steadily to produce a great quantity of energy, which is released as heat. (This is how nuclear weapons also work, the difference being that the reaction is uncontrolled.) Fission of one gram of Uranium 235 liberates energy equivalent to about 2.7 tonnes of coal or 13.7 barrels of crude oil. The Uranium is "used up" by this process, in the sense that it is converted to various fission products, other elements that cannot be used for energy production. An average first generation nuclear power station such as Wylfa producing 1000 megawatts of electricity, uses about 3 kilograms of Uranium 235 each day.



Questions of Safety?

Over the last month assurances from the CEBG that the nuclear power industry is relatively safe have been enormously undermined. Though 'nuclear' to a lot of people immediately spells doom and gloom, there are serious implications coming to light as regards the nuclear industry as a whole. What is even more worrying is that most things coming to light now were defects of 20+ years ago. The CEBG can claim to have high standards of safety now, but that's not very helpful if say a major design fault was committed during construction.

A government survey has revealed that trends in leukaemia and brain tumours are increasing around some nuclear plants. The report would not even have come to light in its full form had it not been for claims

of deliberate suppression in the House of Commons. In the group of first generation reactors there are several coincident positive correlations with increased incidences or trends towards a higher incidence of cancer. Similar trends are evident in the coastal regions of Cumbria and North Wales, which is thought to reflect discharges from Sellafield (Windscale) and other nuclear power stations in the area including Wylfa.

Bradwell (in Suffolk) and Wylfa areas also show an unexplained excess of deaths from liver cancer. The report suggests that these apparent links may be due to "behavior in the rural locations adjacent to the installations."

A welder employed at Hinkley Point plant in Somerset has stated publicly after 17 years that bad welding was covered up by the Bristol Piping Company, his employers, by

substituting X-rays of already completed bad welds with good ones. The Nuclear Installations Inspectorate the nuclear industry's powerful watchdog is taking the accusation-cum-confession very seriously...

A scientist who resigned from his job at Trawsfynydd power station as a health physics monitor has called for the closure of the plant. Trawsfynydd is situated within the Snowdonia National Park, to the South of Ffestiniog about 25 miles from Bangor. Gerallt Jones claimed that monitoring of radiation was superfi-

cial and that working practices had deteriorated. The CEBG covered itself in the wonderful statement "Health physics monitors are employed by the board to advise on radiation hazards. It is one of their functions to bring to the attention of management any breaches of safety rules and regulations. Mr. Jones has never really highlighted these problems." This isn't really the point, is it? More specifically Mr. Jones claimed that contamination on soles of footwear was removed by brushing and scraping and not reported to the HSE or management. Also, longer hours worked during shut-down resulted in "a lack of concentration, boredom, and deterioration of working practices which could lead to the spread of contamination," he said.

Less than one fifth of a cubic centimetre of the 70,000 gallons of cooling water pumped into the lake at Trawsfynydd was tested for contamination. Low level waste for insinuation was only tested for contamination on the outside of the rubbish bags in which it was packed. Personnel leaving the reactor area were not given a full body scan because of the inadequacy of monitoring equipment.

Commenting on an incident last February when 12 tonnes of radioactive CO₂ gas leaked into the atmosphere, Mr. Jones claimed that engineers in charge had been warned that a valve may lift at high pressure by a fitter but did not act on the advice.

Trawsfynydd, like Wylfa, is a first generation Magnox reactor.

THE WYLFA STORY CONTINUED

AIDS - a virus with a coat of many colours

This is not another social commentary, warning about the dangers of promiscuity, or injecting drugs (a la "shooting gallery"). The intention here is to elucidate the action of the AIDS virus (known as HIV).

The virus was first identified by Luc Montagnier and his research team at the Pasteur Institute in Paris. It was found to belong to a recently discovered group of viruses, the retroviruses, as such it uses RNA as its transferable genetic material, as opposed to the more usual DNA, this has important consequences, as we shall see later.

It should be noted that viruses are not strictly alive at all, they are best described as rogue selections of genetic material, surrounded by a protective protein coat. The genetic material is usually considered to have broken away from a "parent" (usually human) genetic code. On entering a cell of the body, these rogue codes compete against the cell's genetic material for resources, unlike the "real McCoy", however, they serve no other useful purpose than to replicate their own Viral RNA and their protein coats. Eventually, as more and more viruses clamour for the cell's resources, it is overwhelmed, and dies, releasing the viruses to infect other cells.

Unchecked any virus would prove fatal, eventually killing enough cells that the organism can no longer func-

tion. To protect itself, the body learns to recognise the free virus, by the protein structure of its coat, and attacks this, killing the virus within. By this method the body can "mop up" viruses outside cells, and so bring the disease under control. Vaccines work in analogous fashion, by "priming" the body's immune system to recognise the empty protein coat, it then reacts immediately to a real infection, and prevents it gaining any foothold.

Is HIV any worse than other viruses then? Vaccines have been prepared, and used to great effect on other viral diseases, why not AIDS? People have suffered from colds for years yet it is hardly a killer!

As we shall see, several factors inherent in HIV make its treatment extremely difficult, and give no grounds for complacency. To understand these we must look more closely at its "life" cycle within an infected patient.

On first infecting a patient the virus "lies low", replicating slowly, few cells are killed and the patient feels few, or no, overt symptoms. This period may last for several years, yet the virus is present in the blood stream and may infect others. During this time the patient's immune system suppresses and attacks the free virus, that is the virus outside the patient's cells.

Within the cell the importance of the retrovirus' nature becomes appa-

rent. Before being able to replicate itself HIV must make a DNA template, it does this via an enzyme called reverse transcriptase. All that is important to note here is that the sequence from viral RNA to the template DNA is a low fidelity transcription. Once formed the template DNA starts to produce more HIV, complete with protein coat. Unfortunately the copying procedure to form the DNA is sufficiently poor that the daughter viruses are not the same as the original strain. The coat, by which the body's immune system recognises the virus, changes colour.

Still, to a large extent the immune system could cope, though under a progressively more severe work load, if the preferred host cells of HIV were not the cells of the immune system itself. Under this added burden, the immune system finally collapses, and is no longer able to prevent adventitious infections. To date most AIDS victims have succumbed to these, pneumonia is a common killer, but gangrene, amongst other nasties may also take hold, adding to suffering.

Here the deprivations do not stop. Even if the immune system could be "shored up" to prevent other infections taking hold, other cells are also attacked. Of prime importance are those of the brain. The blood-brain barrier that the virus needs to cross is well defended, and even once passed its replication is slow (perhaps because of a lack of raw materials - brain

cells do not reproduce). Certainly, a loss of mental function is the last symptom of the disease, leading to motor impairment, premature senility, and death.

Hope is not totally lost. With the knowledge that HIV was a retrovirus came the immediate application of chemotherapy, essentially saturating the body with DNA nucleoside "look alikes" that fool the reverse transcriptase into making non-functional DNA, so freezing the virus and the progress of the disease. (C&EN 8/12/86, p7) This is a short term measure, providing at best a few months respite. The technique also prevents the body's own cells from replicating, thus causing toxic reaction on prolonged usage.

These are the features that make AIDS an intractable disease, both for the body's defence system, and currently from a medical point of view.

The challenge to cure AIDS is daunting, currently knowledge of the disease only helps to show how difficult the task will be. Increased familiarity with the area could open a Pandora's box of new skills, perhaps to treat leukaemia, senile dementia and cancer. For the foreseeable future, the only butterfly that can be allowed to escape is hope.

In the meantime? - Cultivate a sense of humour, you'll need it.

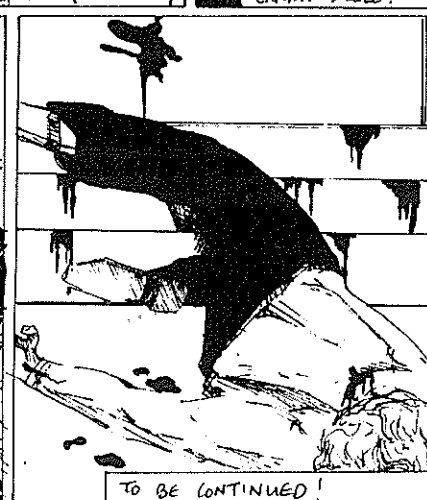
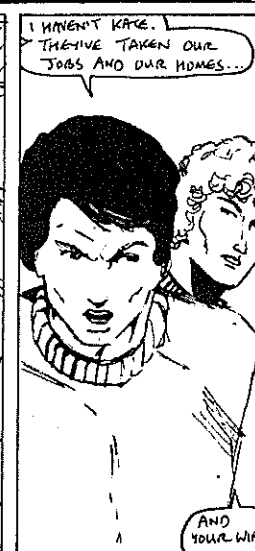
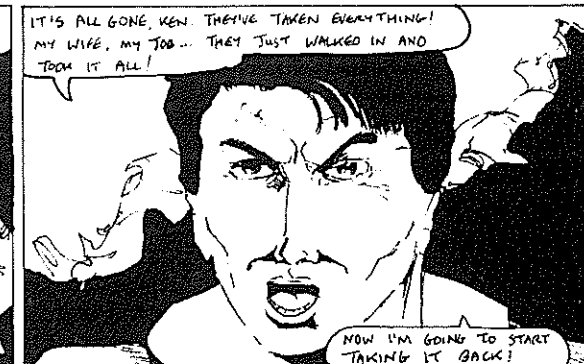
Barry Kaye

YESTERDAY'S MEN

by bob stone & mike smith

PART 6

THINGS JUST GET WORSE FOR PAUL DOMINION AND HIS CREW HAVING LOST FOUR YEARS OF THEIR LIVES, THEY HAVE FOUND THAT SUGGEST ENOUGH HAS NO PLACE FOR THEM...





**THE AIDS VIRUS CAN
LIVE ON A DIRTY NEEDLE.**

**DON'T GIVE IT A
NEW HOME.**



AIDS is incurable and it kills.

Sharing a needle or equipment with an infected person is the easiest way to put the AIDS virus straight into your bloodstream.

So, if you're thinking of injecting drugs for the first time, don't. And if you can't give up injecting, never share a needle.

For more information and advice please telephone Cardiff (0222) 464121 or 223443; or Freephone 0800 555777.

D O N ' T A I D A I D S

ISSUED BY THE DEPARTMENT OF HEALTH AND SOCIAL SECURITY AND THE WELSH OFFICE.