Whick Country?

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The Fellowships have been established by Al fred Fader Shes in Ruloge
BTC to support research curer by doutoral students in Art History for a period af one year. Students in the Ph. D. program in Art History who have completed their Comprehensive Examinations and all other requirements, except thesis research and writing, are eligible to apply. The endowment provides up to three fellowships ammally worth $\$ 20,000$ each.

January 16, 1995.
218 Oxford St.
Winnipeg, MB. R3M $3 J 6$
Canada.
Dear Dr. Bader,
For the last few years I have been reading with more than passing interest about your generous contributions to Queen's. In the various articles a few of the unasked questions of forty eight years ago were answered for me. You were a graduate student and I think I was going into third year of Engineering Chemistry when we briefly occupied adjoining space in a lab at the top of Gordon Hall. Liqueurs were a concern to me at the time and you were kind enough to assist me.

In the interview in Saturday Night you were quoted as having the feeling that Canadians were on the whole parochial and the purpose of the castle was to give us an opportunity to be exposed to a broader environment. I would agree generally, with the caveat that people from western canada are $I$ believe, much more outward looking than those from southern Ontario. I personally have waged a decades long good natured battle with my peers about this narrowness of view.

At the moment, I am chairman of the Canadian Paint and Coatings Association and the historic parochialism of the domestic industry is testing my patience. I have my own small manufacturing company in Winnipeg. I am even old enough to remember Murphy Paint since we distributed a few of their products when I worked during the summer months before I became associated permanently with my present company.

More recently we have seen pictures of "the castle" on TV and to me personally it looks like a wonderful place to study the history of art, if and when I retire.

In any case, this is a somewhat rambling letter, but I did want to congratulate you on your success, your generosity and the fact that you have obviously made a positive contribution to the world in which you lived and worked. You are part of that group of very talented people who emerged from the internment camps to make large contributions in the arts and science of our community.

Thank you.
Yours truly,


Mark Bernstein. Sc. '48

## 'FAX FROM

DR. ALFRED R. BADER Suite 622<br>924 East Juneau Avenue<br>Milwaukee, Wisconsin 53202<br>Telephone 414-277-0730<br>Fax No. 414-277-0709

January 23, 1995

To: Mr. Thomas Thayer
Financial Department
Queen's University

## Dear Tom:

Could you please give me your estimate of how much is in the art history fellowship fund which we have also been using to purchase the occasional painting. The last purchase, I believe, was from Christie's for U.S. $\$ 50,000$.

Many thanks for your help.
Sincerely,


## FAX FROM

DR. ALFRED R. BADER

Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone 414-277-0730
Fax No. 414-277-0709
January 23, 1995

To: Mr. Ken Cuthbertson
Editor, Alumni Review
6135456777
Dear Ken:
I was in Holland and then England when your thoughtful fax of November 10, 1994 arrived.
I think you made the right decision in selecting Chapter 3, the Queen's chapter, although surely you will want to omit the very end as all that chemistry would be of interest only to specialists.

Would you like to have a disk for that chapter? That would make proofreading essentially unnecessary.

Best personal regards,


- Alined buel

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## FAX FROM

DR. ALFRED R. BADER

Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone 414-277-0730
Fax No. 414-277-0709

January 25, 1995

To: Mr. Thomas Thayer
Director, Financial Services
Queen's University

## Dear Tom:

Thank you for your fax of January 24th, giving me the details about the art history fellowship fund, much appreciated.

You will recall that last November I asked you to transfer $\$ 2000$ from the abeyance fund to the Science ' 44 Fund. I have a special affection for Science '44, because I lived so happily in the Science '44 Coop, and that was my thank you. Could you please confirm that the transfer was made.

Many thanks for all your help, and best personal regards.
Sincerely,


## FAX FROM

DR. ALFRED R. BADER

Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone 414-277-0730
Fax No. 414-277-0709

January 30, 1995

To: Professor Edward Piers
Department of Chemistry
University of British Columbia
6048222847

## Dear Ed:

I have just returned from a quick trip to buy paintings in Florida, and I am now off for a week in London.

Thank you so much for your fax of January 26 th.
I will be very happy to give the three lectures, and possibly the alumni association of Queen's University in Vacouver might also like me to give a talk, which surely could be fitted in on April 6th. I suggested that the association contact you to arrange for suitable timing.

We much look forward to being with on both days, and joining you for dinner on Friday evening, April 7th.

Sincerely,

c: F. Campbell, Queen's

## ALFRED BADER FINEARTS

$\mathrm{Mr}, \mathrm{Ken}$ Cuthbertson<br>Editor<br>Alumni Review<br>Queen's University<br>Kingston, Ontario K7L 3N6<br>Canada

Dear Mr. Cuthbertson:
As requested in your fax of January 26th, enclosed is disk containing Chapter 3 from Dr. Bader's autobiography, Adventures of a Chemist Collector. If you need anything further please let me know.

Cordially,

## Marilyn Hassmann

Enclosure

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\text { ASTOR HOTELSUITE } 622 \\
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\text { MILWAUKEE WISCONSINUSA } 53202 \\
\text { TEL } \&^{\prime} \not+277-0730 \text { FAX } 414277-0700
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## FAX FROM

## DR. ALFRED R. BADER

## Suite 622

924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone 414-277-0730
Fax No. 414-277-0709

March 14, 1995

| To: | Mr. John Heney <br> Department of Development, Summerhill <br> Queen's University |
| :---: | :--- |
| Fax: | $(613) 545-6599$ |

Dear John:

The IRS regulations have changed and cancelled checks for gifts above $\$ 250.00$ no longer suffice.

May I impose upon you to send me a simple letter saying that during 1994 I gave Queen's University, besides 7,500 shares of Sigma-Aldrich stock, also a total of U.S. $\$ 151,000.00$ ?

Many thanks for your help.
Best regards.
Sincerely,


ALFRED BADER FINEARTS

To Keu Eutbutpon

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6135456777
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Thes pelen recene colour photos, He file othe recene colour photos ama tare B/w 1945 photos are going to you by expons wave to-day. In Kle PFille photo, 1 am wearimg a white $2 u$ erns swerake, in te center. I Still haw the fweat $2=1$, buk, ithas turued ivory. Qua I haoc lof my luais.

Best wister

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OLI..RTMENT OF ART

Kingston, 19 March, 1995

Herrn<br>Dr. Alfred Bader<br>2961 North Shepard Ave<br>Milwaukee, WI 53211<br>USA

Lieber Alfred,
anbei der versprochene Sonderdruck meines letzten Artikels aus SIMIOLUS. Leider haben sie auf meine Bitte, mich unter Queen's University zu führen, nicht mehr reagieren können, doch bin ich zuversichtlich, daß sich mein Wechsel hierher schnell herumsprechen wird.

Hier läuft bislang fast alles relativ gut. Die Studenten müssen sich erst an mich und meinen Unterricht gewöhnen; ich mich erst an sie. Ich versuche ihnen immer wieder deutlich zu machen, daß slides kein Ersatz für Bilder sind. Das Motto lautet: To learn looking! Sie sind es einfach nicht gewohnt und wissen noch nicht, daß die Augen das wichtigste Handwerkszeug des Kunsthistorikers sind. Aber das wird sich ändern. In meinem GraduateSeminar habe ich immerhin zwei Studenten, die nahezu perfekt Niederländisch und ein wenig Deutsch sprechen, ein guter Anfang.

Momentan prüfen wir die Kandidaten für das kommende Jahr und haben im Bereich 16. und 17. Jahrhundert die Qual der Wahl. Vermutlich bekommen wir nur einen durch, da die "Modernisten" natürlich eigene Kandidaten ins Programm haben wollen. David De Witt kennst Du ja. Er ist der Jan van Noordt-Mann. Ein wenig schwerfällig, aber ein solider Arbeiter und jemand, der mit den holländischen Forschungseinrichtungen vertraut ist. Er würde zweifelsohne eine solide Monographie (mit Katalog) über seinen Künstler schreiben können, braucht aber intensivste Betreuung und Anleitung. Axel Rüger, und über diese Bewerbung bin ich besonders froh, ist ein ehemaliger Student von mir aus Berlin. Er gehörte dort zu meinen 5 besten Undergraduates und hat ein Angebot aus Cambridge (England), um dort seinen Doktor zu machen! Er würde aber viel lieber mich als Doktorvater haben und überlegt, nach Kingston zu kommen. Er hat vorzügliche Voraussetzungen: Arbeit im Kunsthandel (Sotheby), Internship am High-Museum in Atlanta, Internship am Museum in Detroit, wo er momentan mit George Keyes zusammen arbeitet. Zudem wird er kommende Woche auf einem Symposium in St. Louis einen Vortrag halten etc. etc. Du könntest auch ihn kennen. Er war bei Deinem Vortrag in Berlin und hat über Willem de Poorter gearbeitet. Können wir es uns leisten einen Europäer abzulehnen, der mit Erfolg in Berlin und Cambridge studiert hat?

Du siehst das Ph.D.-Programm gewinnt plötzlich an Attraktivität, was die Auswahl kompliziert mach. Aber besser so als anders herum.

Douglas Stewart und ich planen ein Symposium im Juni des kommenden Jahres in Herstmonceux zum Thema "Das 'portrait historie' in der flämischen und holländischen Kunst zwischen 1600 und $1800^{\prime \prime}$. Ich bin froh, daß ich für meine Idee einen Verbündeten gefunden habe. Wir planen 10-12 kurze Vorträge an zwei Tagen und die anschließende Publikation der Beiträge in einem Buch. Eingeladen werden Kollegen aus den USA, Holland, Belgien, England, Deutschland und Österreich. Zudem wollen wir unsere Studenten einbinden. Doch nun kommt zunächst die Finanzierung der Unternehmung. Eine Absage haben wir bereits mit dem Argument, es handele sich um eine Veranstaltung, die nicht auf kanadischem Boden stattfinden wird, was kein Argument, sondern Blödsinn ist. Aber wir geben nicht so schnell auf! Irgendwie muß es gelingen und wird es auch gelingen.

Am 25. April werde ich nach Europa fliegen, da ich am 28. April schon wieder in Amsterdam sein muß zu einer Besprechung des RRP. Ende Mai folgt dann ein Vortrag am Warburg Institut, Mitte Juni einer in Berlin und Ende August in Amsterdam im Rahmen der Amsterdam Summer University, zu der ich als einziger nicht-holländischer Dozent eingeladen worden bin. Eine Chance, die ich nutzen will, um weitere Reklame für unser Department zu machen. Zwischendurch werde ich dann versuchen, weiter an Eeckhout zu arbeiten. Ich bräuchte dringend ein paar Monate ohne Unterricht, um mich auf Eeckhout konzentrieren zu können. Mittlerweile habe ich seit 6 Jahren kein freies Semester gehabt.
Irgendwann im Sommer muß dann auch der Umzug meiner Sachen von Berlin aus organisiert werden. Nach meiner Rückkehr nach Kingston gehe ich dann auf Wohnungssuche.

Du siehst, es gibt mehr Arbeit als genug. Langeweile kommt dementsprechend sicher nicht auf. Dennoch: Ich liebe Herausforderungen und denke, daß ich hier viel für das Department erreichen kann. Dafür ist es gut zu wissen, daß ich auf Eure moralische Unterstützung rechnen darf.

Meanwhile, my love to you and Isabel,


Dr. Alfred Bader
Suite 622
924 East Juneau Ave.
Milwaukee, WI
53202

By Fax: (414) 277-0709
Dear Dr. Bader,
I received the photos you sent. They're just what we were looking for. Apologies for not getting back to you sooner. I've been as busy as the proverbial one-armed paper hanger preparing material for the May-June issue. I've also been waiting for Cathy Perkins' comments on the proposed excerpt. We've got five pages available in the Review, and I found that cutting the chapter to fit wasn't easy. Cathy had some good suggestions in that regard.

With a short "sidebar" that I'm writing (explaining how and why you wrote the book) the planned excerpt will fill the available space nicely. Please peruse the attached material and let meknow if you have any questions, comments, or concerns. you'll see that we've made some style changes, and corrected a few small typos (as marked).

Please note: the attached pages are not as they will look in the magazine. I've set them up in this format for ease of reading. I will have our designer do a nice layout, which I'll fax you when it's ready (along with that sidebar article).

Dr. Alfred Bader
Astor Hotel Suite 622
924 East Juncan Avenue
Milwaukee, WI 53202
U.S.A.

Dear Dr. Bader:
I wish I had something to report on the acquisition of a Markino, but I am still on the look-out. I shall be talking about him to the Japanese students of English here on May 5, however. I really enjoy that.

Here is something very different. I became very intrigued (being a Classicist) with the subject of your Allegorical Landscape, and worked out the enclosed hypothesis. I have discussed it with both David McTavish and Doug Stewart who seem persuaded that $I^{\prime} m$ on the right track. What do you think?

R. S. Kilpatrick Professor and Head

Enclosure

# ALFRED BADER FINEARTS 

March 30, 1995

Professor R.S. Kilpatrick
Department of Classics
Queen's University
Kingston, Ontario K7L 3N6
Canada

## Dear Professor Kilpatrick:

I am just leaving on a two-week to California and western Canada and so can reply to your letter of March 22, received today, just very briefly.

Allow me to think about your hypothesis during my trip, but in the meantime, may I suggest that you discuss this with Professor Volker Manuth in the Department of Art History at Queen's?

Best regards.
Sincerely,
$\mathrm{AB} / \mathrm{cw}$

> By Appointment Only
> ASTORHOTELSUITE 622
> 924 EAST JUNEAUAVENUE
> MILWAUKEE WISCONSINUSA 53202
> TEL $414277-0730$ FAX $414277-0700$

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    FORTUNA REGUM: A 17th-Century Allegorical Landscape
    at Queen's University
    R. S. Kilpatrick
The anonymous "Landscape with allegorical figures" in oils, from the Alfred Bader Collection at Queen's (Telling Images, 3739), presents a puzzling central image:
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.... the white-haired nude man in the middle foreground .... this supernatural figure with large outstretched wings approaches a weary traveller, who with a pack on his back and a walking stick in his hand, is seated on a bank on the lower left. The winged figure holds out a crown in his right hand and a staff in his left.

The meaning of the picture should flow from this classical central figure. Unlike the others, which are human and in 17thcentury dress, this mature, bearded and winged figure wears only a loin-cloth, revealing a powerful physique. If he is a god, which one?

There seem to be no parallels to this figure in ancient visual art, but there may be useful literary clues in the writings of Horace and Seneca. Two odes of Horace, for example, allude to Fortune as a winged deity who both gives and takes away wealth and power with equal suddenness from mortals. In ode 1.29 (49-56), for example, to support his invitation to Maecenas to join him at his farm during summer's dog-days, Horace declares:

[^0]This bearded, winged striding figure could be Horace's Jupiter- Fortune. Holding a sceptre in left hand, with his right he extends a crown to the traveller; the latter looks away, quite disinterested or else unprepared for the coming reversal in his own fortunes. To the right and behind, a second man has been thrown to the ground, where he is being stripped of his crimson garments by mocking "cavaliers." This is possibly the previous wearer of that crown, whom the same god of Fortune has brought low. Further in the background a third figure strides away up the valley wearing a sword(?) and carrying a stick(?). His path will lead past a triangular gallows at the foot of the hill on the right, holding a hanged man and a perching raven. Next to the gallows stands a second instrument of torture or execution, a wheel mounted on a pole stuck in the earth at a crazy angle. (This wheel might also be a symbol of Fortune.) He will pass beneath a fortress high on the rocks on the right, and then into the path of two men (mounted?) in armour approaching in the distance.

Those threatening details, along with the ominous dark and reddening clouds lowering over the hill on the right, and a bat or owl flying overhead, contrast with a peaceful sunny meadow in the left half of the picture, where a shepherd in crimson garments with sheepskin vest pipes to his flock. Behind him in the distance, balancing these two armoured figures on the right, is a man ploughing with a team of oxen.

Dermarcating the contrasting halves of the picture stands $a$ tall clump of trees, offering the piping shepherd some shade from the sun. This sunny pastoral scene offers an alternative to the dark, steep, overcast valley on the right, with its hints of ambition, fear, and danger. The shepherd may be one more allusion to ode 3.29, a poem in which Horace contrasts a tranquil, escapist life with the Angst of Maecenas' political burdens in Rome:

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    iam pastor umbras cum grege languido
    rivomque fessus quaerit et horridi
        dumeta Silvani caretque
            ripa vagis taciturna ventis: 24
```

    tu civitatem quis deceat status
    curas et urbi sollicitus times,
        quid Seres et regnata Cyro
        Bactra parent Tanaisque discors. 28
    Now the shepherd with lazy flock
    wearily seeks the shadows and stream
    and the bushy trees of rough Sylvanus,
    and the quiet bank misses
    its wandering breezes.
    You worry about the best condition for the nation and fear for the city, fretting over the intentions of the men of Cathay, and the Bactrian realms of Cyrus and the troubled Don.

Complementing the Horatian Fortuna regum (Epistles 2.1.191), comes an ethical choice between the vita activa and vita contemplativa: on the one side the temptations of power; on the other, peace moderation and contentment.

This interpretation might have suggested itself long ago, but for the artist's odd representation of Fortuna as a male deity. Horace's subtle syncresis of Jupiter with Fortune (Diespiter ... deus ... Fortuna) could also be Stoic. Zeus's power to overturn established royal power and order goes back to Homer, Hesiod, Archilochus, Pindar, and the tragedians; the Stoic equation of Zeus and Tyche, or Jupiter and Fortuna is documented by Cleanthes, Plutarch, and Seneca:

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    sic nunc naturam voca, fatum, fortunam:
    omnia eiusdem dei nomina sunt varie utentis
    sua potestate. (Sen. de Beneficiis 4.7.1)
    In that way now call Nature 'Fate' or
    'Fortune': all are names for the
    same god using his power in different
    ways.
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    The third-century traveller Pausanias (5.15) reported seeing
    at Olympia a statue of zeus moiragetas ("Zeus the guide to
Fate'), possibly related to a gem in the Hermitage showing a
seated Zeus, an eagle at his feet, in his left hand a sceptre, in his right three female images in flowing garments -- the three Fates.

The standard English and German commentaries on Horace's Odes (Nisbet-Hubbard, Kiessling-Heinze) both support the view that in ode 1.34 Fortuna stands for Diespiter/deus; i.e., not a personification of blind Fortune, but "Gottheit". Through the Hellenistic period Fortune's wings did not appear in the visual arts, although they were mentioned in poetry and allegorizing prose. Horace and seneca (both school authors) could have been
sufficient authorities forthe 17 th-century artist's robust winged Jupiter-Fortuna. The daring logic of the choice may be contrasted, for example, with the figure of Fortuna by Giordano on the 17th-century gallery ceiling of the Riccardi-Medici Palace in Florence . Naked to the waist, blindfolded and winged, in her left hand a globe, in her right a staff (also grasped by the right hand of the veiled figure of Natura), she is lacking only the rudder make her panoply complete.

17 th-century emblems exploit the relationships between Jupiter, Virtue, Fortune and royal power, as illustrated by a few examples from Henkel and SchBne's Emblemata (Stuttgart, 1967).
(A) NON OBEST VIRTUTI SORS (1552 H-S = Roll. I Nr. 6) shows the goddess Fortune nude and unwinged, with billowing veil in upraised right hand, and turning on a wheel with her left hand a calm nude male. In the centre background Jupiter approaches (to the rescue?) with eagle perched on his head. A stormcloud looms behind. (A syncresis of Fortune and Venus may offer further antithesis to Virtue.)
(B) MAIOR QUAM CUI POSSIT FORTUNA NOCERE (ibid., Ovid Metamorphoses 6.195 ) is represented by the emblem of Virtue sidesaddled on Fortune's wheel, and driving a spike into its rim with her hammer. The world is a calm ocean, with storm clouds on either side. The wheel is flanked under the clouds by a floating boat (left) and a rock (right).
(C) Armed Jupiter with his eagle at his feet (Iliad 24.527; 1719$20 \mathrm{H}-\mathrm{S}=$ Per. Th. Nr. 57) mixes the bitter and sweet for mortals to drink.
(D) LYESSE ET TRISTESSE shows a crowned and sceptered Jupiter on his throne (Iliad $24.529 \mathrm{ff} ; 1720 \mathrm{H}-\mathrm{S}=$ Corr. [C iii b]) distributing good and evil to mortals through blind Fortuna, who draws the liquid from two barrels them pours it from one of three pitchers into a man's bowl.
(E) NULLA SORS LONGA ( $1720 \mathrm{H}-\mathrm{S}=$ Bor. S. 59 [Nr. 58] shows a Jupiter temple and those same two barrels of Fortune.
(F) DEUS DAT CUI VULT ( $1267 \mathrm{H}-\mathrm{S}=$ Roll. II Nr. 65) shows the power of God giving the scepter of earthly power from the skys.

Another ambiguity rests in the seated traveller. Is he totally unsuspecting of the change of fortune about to befall him, or is he like Horace, wrapped in his own virtue and impervious to the blandishments of wealth and power?

The artist represents his God of Fortune as neither random nor blind. Purpose lies behind chance events, though it may be inscrutable. To make this clear, the allegory may go beyond visual convention, to poetry and philosophy. The "Fortune of Kings" made its way into 17 th-century poetry, as well. Here are the lines given to Calchas by James Shirley in his 1649 masque The Contention of $A$ jax:

The glories of our blood and state
Are shadows, not substantial things;
There is no armour against Fate;
Death lays his icy hand on kings:
Sceptre and Crown
Must tumble down,
And in the dust be equal made
With the poor crooked scythe and spade.
Some men with swords may reap the field,
And plant fresh laurels where they kill:
But their strong nerves at last must yield;
They tame but one another still: Early or late They stoop to fate,

And must give up their murmuring breath
When they, pale captives, creep to death.
The Garlands wither on your brow:
Then boast no more your mighty deeds!
Upon Death's purple altar now
See where the victor-victim bleeds.
Your heads must come
To the cold tomb:
Only the actions of the just
Smell sweet and blossom in their dust.


April 18/95
Dear Alfred -
Congratulations on your Parsons
Award from the ACS - another jurel in yous crown! The press release was a wonderful tribute from (to us here) a new perspective. You certainly are making the world a better place on your journey to immortality. My ear was glued to your Vicki Gabereau interviews. Agreat program! I hope she takes up your challenge of a return

Dr. Alfred R. Bader
924 East Juneau Ave, Sure 622 MILWAUKEE, WI visit. / After the Holiday Inn in Ottoles, well Hor bl coming over to 'the House'
U.S.A. $\quad 53202$ for a few days?


## 9 <br> ou're © $\operatorname{O}_{\text {vited }}$

 to meet Dr. Alfred Bader and Mrs. Isabel BaderDr. Alfred Bader is one of Queen's most illustrious and dedicated alumni. He overcame persecution under the Nazis to become one of the world's eminent industrial chemistry entrepreneurs. He founded and served as CEO of Aldrich Chemical Company, Incorporated. Dr. Bader's loyalty to Queen's is evidenced by his unabashed and enthusiastic promotion of the University and its goals, and his many important contributions such as the Alfred Bader Scholarship in Art History, the Aldrich Chemical Company Scholarship in Chemistry, and the Alfred Bader Prize in Jewish Studies. As well, he and his wife, Isabel, are the donors of several gifts of 17th Century Dutch paintings and other exceptional works to the Agnes Etherington Art Centre. It was the Baders' vision and commitment to the idea of an international study centre that made it possible for Queen's to acquire Herstmonceux Castle.

The Vancouver Branch of the Queen's University Alumni Association is pleased to host a

Wine \& Cheese Reception with Dr. Alfred Bader and Mrs. Isabel Bader

Reception Centre<br>UBC Botanical Gardens<br>6804 S. W. Marine Drive

Thursday, April 6, 1995
6:00-8:30 p.m
$\$ 15.00$ per person with Free Parking
R.S.V.P. by 31 March, 1995

Don Kossuth at (604) 822-9405 (w)

## ALFRED BADEN FINE ARTS

i) R. ALFRED BADER

April 19, 1995

Via Facsimile: 613/545-6433

Mr. Thomas Thayer<br>Finance Department<br>Queen's University<br>Kingston, Ontario K7L 3N6<br>Canada

Dear Tom,

As you know, the interest on my loan to Queen's University is due on May 2nd. Please wiretransfer the interest as follows:

## Credit to:

Bank of Montreal
55 Bloor Street West
Toronto, Ontario N4W 3N5
Canada

For credit to the account of M\&I Marshall \& Ilsley Bank, $\qquad$

## Beneficiary:

Dr. Alfred Bader
Milwaukee, WI
Beneficiary's $\square$ It $\square:$

## Special Instructions:

Remittance to be made under immediate SWIFT/TELEX advice to M\&I Marshall \& Ilsley Bank, Milwaukee, WI USA
Send Attn: Sara Runge
Transfer to M\&I in Canadian dollars
Many thanks and best regards,


Transfer to N\&I in Comadiau dollan

## FAX FROM

DR. ALFRED R. BADER<br>Suite 622

924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone 414-277-0730
Fax No. 414-277-0709
April 26, 1995

To: Mrs. Cathy Perkins<br>Principal's Office<br>Queen's University

Dear Cathy:
Thank you for your fax of yesterday.
I think - but am not certain - that I have Vice Principal McNeill's essay "Have you anything to declare?", but could you please look at it and see whether he talked at length in that essay about Thomas Carlisle's admonition "Do the duty which lies nearest"?

If not, I am sure there was another published talk dealing mainly with Carlisle's quotation.
Thank you for your kind postcard.
If enough listeners suggest to Vicki Gabereau that there should be a repeat performance after she has had a chance to read the book, I would, of course, be happy to be with her.

Have you had a chance to read my book?
There are 1,000 copies at Herstmonceux so if Little, Brown is slow in delivering, you might ask the next traveler from Herstmonceux to Queen's to bring some copies back.

I fear that our schedule in October will be so busy that I don't think that we will be able to stay long after the reunion. But surely you understand why we would prefer to be with the fellows from Sc. ' 45 during that week-end.

Fond regards, as always,

AB/cw

MESSAGE
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Qucem'
PHONE $\qquad$ message May 29 -
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(rame) firn rame) on emvery

## FAX FROM

DR. ALFRED R. BADER

Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone 414-277-0730
Fax No. 414-277-0709

April 27, 1995

To: Ms. Kari Anderson Tobias
Fax: (613) 545-6777

Dear Kari:
In response to your telephone query, perhaps the best talk in Guelph will be The Detective's Eye, which is a talk about paintings before and after restoration.

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w i l l
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Of course, I/discuss mainly paintings which I have already given to Queen's University.
Best wishes,

$\mathrm{AB} / \mathrm{cw}$

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#### Abstract

     










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## FAX FROM

DR. ALFRED R. BADER<br>Suite 622<br>924 East Juneau Avenue<br>Milwaukee, Wisconsin 53202<br>Telephone 414-277-0730<br>Fax No. 414-277-0709

May 12, 1995
Page 1 of 1

To:
Mr. Ken Cuthbertson
Editor, Queen's Alumni Review
Fax: (613) 545-6777

Dear Ken:

I am certain that hundreds of Queen's alumni were saddened by the news that Clyde Lendrum died two weeks ago.

Clyde was a most singular man. He was one of the founders of the Sc.' 44 co-op. During the war, he was taken away from Queen's to work at a uranium mine, and I believe that he did not receive a B.Sc. - perhaps honoris causa - until the 1980's.

He was one of the most enthusiastic Queen's alumni I have ever met, and his great goal was to raise $\$ 1$ million for the Sc. ' 44 Fund.

Last July, he and I spent a delightful day in Cobalt, Hailebury and New Liskeard to search for paintings by Ernest Sawford-Dye, a painter who did very fine winter landscapes, and actually boarded with Isabel's grandmother! Our hope was that the Agnes Etherington Art Centre might be interested to show his winter landscapes sometime in the future.

Ken, please don't mind my rambling, but I am so saddened by the loss.
Best wishes, as always,

## FAX FROM

## DR. ALFRED R. BADER

Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone 414-277-0730
Fax No. 414-277-0709

May 12, 1995
Page 1 of 1
$\begin{array}{ll}\text { To: } & \text { Mr. Ken Cuthbertson } \\ & \text { Editor, Queen's Alumni Review } \\ \text { Fax: } & (613) 545-6777\end{array}$

## Dear Ken:

Your May/June issue of the Queen's Alumni Review is so beautiful that I would love to be able to share some copies with my family and friends.

Would it be possible for you to send me 6 more copies, but please, not by courier or even by mail.

It so happens that Isabel will be receiving an honorary doctorate from her alma mater, Victoria University in Toronto, next Thursday evening, and two of our best Queen's friends, Mary and David Smith, will be attending. I don't think that David would mind taking the copies with him.

Best wishes and many thanks, as always,


FAX FROM

# DR. ALFRED R. BADER 

Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone 414-277-0730
Fax No. 414-277-0709

May 22, 1995

To: Ms. Kari Anderson Tobias
Fax: (613) 545-6777
From: Cheryl Weiss
Office Manager

## Dear Kari:

As Dr. Bader's Guelph trip approaches, may I ask you to reconfirm his calendar by sending an updated schedule of the events you have planned for him with Queen's alumni?

With many thanks for your help and best regards, I remain,
Yours sincerely,


FAX゙ TRANSMISSION
ALUMNI ASSOCIATION

| TO: | Ms Cheryl Weiss Fax: 414-277-0709 |
| :---: | :---: |
| Erom: | Ivanka Franjkovic |
|  | Branch Development Coordinator |
|  | Department of Alumni Affairs |
|  | Queen's University |
|  | Kingston, Ontario |
|  | K7I 3N6 |
|  | Phone: (613) 545-2060 Fax: (613) |

Date: May 23, 2995
Number of Pages: (including this one) 2

Dear Ms Weiss,
Kari Andersen forwarded your fax to me as she is not imvolved with the organization of Dr. Bader's lecture in Guelph next week. I sent Dr. Bader a fax on March 31 outlining our plans for all the alumni events we had planned with him. I would like to confirm that the plans for the Guelph lecture remain the same and are as follows:

Early - Professor Oakley will have Drs. Alfred and Isabel Afternoon Bader taken back to their hotel, the Holiday Inn.

| $5: 00 \mathrm{pm}$ | Ivanka Eranjkovic will pick up Drs. Alfred and |
| ---: | :--- |
|  | Isabel Bader at the Holiday Inn and take them to |
|  | dinner with the Guelph Branch President and a few |
|  | other guests (about 7-10 people will be present at |
|  | dinner including the Baders). |

7:30 pr - Reception featuring coffee/tea and seasoral desserts.

8:00 pm - Dr. Bader's presentation of the "Detective's Eye" (two slide orojectors and a microphone will be provided). Question/answer period will Eollow the presentation.

9:30 pm - Ivanka Franjkovic will take the Drs. Bader back to their hotel. The departure time as indicated is flexible and is entirely at the discretion of the Baders.


FAX FROM

# DR. ALFRED R. BADER <br> Suite 622 <br> 924 East Juneau Avenue <br> Milwaukee, Wisconsin 53202 <br> Telephone: 414/277-0730 <br> Fax: 414/277-0709 

May 25, 1995

| To: | Ms. Lisa Yeomans <br> Office of Advancement |
| :--- | :--- |
|  | Queen's University |
| Fax: | $613 / 545-6599$ |

Dear Ms. Yeomans:
Thank you so much for your couriered letter of May 23 rd .
When Isabel talked to Mrs. Arnell, she didn't know that I had already sent the reservation and my check to you in Kingston.

Isabel and I plan to arrive in England on June 8th and then stay at our home in Bexhill, just 8 miles from the castle, until Saturday the 17 th.

With all good wishes, I remain,

$\mathrm{AB} / \mathrm{cw}$

Clyde Lendrum will be missed
lin certain that hundreds of Queer. s alumni share my sadness at the news that Clyde Lendrum. Sc '44. died recently.
Clyde was a most singular man. He was one of the founders of the $\mathrm{Se}^{\prime}: 4 \mathrm{da} \cdot 30$; 40 H . the war, he was taken away from Queen's to work at a uranuminile zed ? Ely. 101 he did not receive a BSc-perhaps honoris causa-untll the 4500.
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Clyde Lendrum will be missed
I'm certain that hundreds of Queen's alumni share my sadness at the news that Clyde Lendrum, Sc'44, died recently.
Clyde was a most singular man. He was one of the founders of the Sc'44 coop. During the war, he was taken away from Queen's to work at a uranium mine, and I believe that he did not receive a BSc-perhaps honoris causa--until the 1980s.
He was one of the most enthusiastic Queen's alumni live ever met, and his great goal was to raise one million dollars for the Sc'44 fund.
Last July, he and I spent a delightful day in Cobalt, Haileybury, and New Liskeard in northern Ontario, searching for paintings by Ernest Sawford-Dye, a painter who did very fine winter landscapes, and actually boarded with my wife Isabel's grandmother! Our hope was that the Agnes Etherington Art Centre might be interested to show his winter landscapes sometime in the future.
Clyde Lendrum will be missed.
Alfred Bader
Sc'45, Arts'46, MSc'47, LLD'86
Milwaukee, WI

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## ALFRED BADER FINEARTS

May 31, 1995

Ms. Ivanka Franjkovic<br>Branch Development Coordinator<br>Department of Alumni Affairs<br>Queen's University<br>Kingston, Ontario K7L 3N6<br>Canada

## Dear Ivanka:

Thank you for the very good care you took of Isabel and me in Guelph.
We certainly enjoyed that weekend.
Enclosed please find a copy of the article that appeared in the Guelph Mercury on Tuesday. It will be clear to you that it contains a few errors, but this really doesn't matter.

With all good wishes, I remain,
Yours sincerely,
$\mathrm{AB} / \mathrm{cw}$

Enclosure

> By Appointment Only
> ASTOR HOTELSUITE 622
> 924 EAST JUNEAU AVENUE
> MILWAUKEE WISCONSIN USA 53202
> TEL $414277-07.30$ FAX $414277-0709$

International Study Centre
Queen's University (Canada)

Herstmonceux Castle
HAILSHAM
TEL: 01323834444
FAX: 01323834499

EAST SUSSEX BN27 1RP
United Kingdom

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## OFFICE OF THE PRINCIPAL

June 30, 1995

Dr. Alfred Bader<br>ALFRED BADER FINE ARTS

Astor Hotel Suite 622
924 East Juneau Avenue
Milwaukee, WI 53202

Queen's University Kingston, Canada K7L 3N6 Tel 613 545-2200
Fax 613 545-6838

## Dear Dr. Bader:

Principal Leggett and others have reported that the Gala and opening of Alfred and Isabel Bader Hall was a great success and enjoyed by all in spite of the rather wet weather. I hope you managed some leisure time following that busy schedule.

I am writing now about your Fall schedule and your visit to Queen's in October and to confirm, as Almeria Natansohn has written, that the Principal's Office and I will be pleased to coordinate your schedule while you are here.

Brenda Forbes and Dianna Bristol have provided an outline (attached) of the Alumni weekend activities which, I would think, will keep you and Isabel busy from Friday afternoon through to Sunday.

Bruce Buchan has expressed an interest in having you speak to a Business class during the time you are here. He had thought of Saturday morning but realized that Alumni activities might conflict. He is considering other options and will be anxious to know your schedule so he can be more specific in his invitation to you.

David McTavish is pleased that the book signing will take place at the Art Centre. In addition, however, he has asked me to tell you that he hopes very much that you will consider giving an Art History lecture as well. I believe David will be writing to you about this soon.

Florence Campbell too is interested in claiming some of your time and asks if you have decided to accept the Chemistry Department invitation for the Wednesday before Alumni weekend or after Alumni weekend.

I know you have indicated to Bill Leggett that you intend to stay at the Holiday Inn with your classmates for the Alumni weekend dates. However, Bill and Claire, as I am sure you know, would be pleased to have you and Isabel stay at Summerhill, for the rest of the time you are here, if you find that convenient.

Finally, I and Dianne Snider Heximer in this office would be pleased to help with travel arrangements once you decide on dates.

Queen's looks forward to having you on campus again.
With best wishes,

JMZ:dsh
c: B. Buchan
D. McTavish
F. Campbell
A. Natansohn

Yours sincerely,


Joyce M. Zakos
Assistant to the Principal


DR. ALFRED R. BADER
52 Wickham Avenue
Bexhill-on-Sea
East Sussex TN39 3ER
Telephone/Fax: 0424-22-22-23

Date: Juey is 19.95
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## ALFRED BADER FINEARTS

August 1, 1995

Dr. Marie Surridge<br>Department of French Studies<br>Queen's University<br>Kingston, Ontario K7L 3N6<br>Canada

Dear Dr. Surridge:
Isabel and I are so happy to know that you enjoyed your visit to Herstmonceux.
With all good wishes, I remain,
Yours sincerely,

AB/cw

> By Appointmentonly
> ASTORHOTELSUITE G22
> I2+FINTHVEAL AVENUE MILWALKEEWISCONSINUSA 5.3202 TEL $414277-0730$ FAX414 $277-0709$

DEPARTMENT OF FRENCH STUDIES
Queen＇s University
DÉPARTEMENT D＇ÉTUDES FRANÇAISES

Kingston，Canada
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June 23， 1995

Dear Dr and Mrs Bader
I was a member of the committee which originally put the plans for the International Study Centre in place．On a recent visit to Britain，having a spare day，I decided to go down to Herstmonceux and see it for myself．

Even though I had seen videos，looked at blueprints，and heard several accounts from people who had been there，I was amazed and delighted by the richness and beauty of the castle itself，but also of the grounds．The trees，in particular，were thrilling，both in themselves and as part of such a splendid landscape．

I just wanted to tell you how much I appreciate your wonderfully imaginative and generous gift to Queen＇s．My husband，who is unable to travel to Europe at present，joins me in thanking and congratulating you．

Yours sincerely，


Marie Surridge


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International Study Centre
Queen's University

## ALFRED BALER FINE ARTS

July 13, 1995

Mrs. Marie Surridge
Department of French Studies
Queen's University
Kingston, Ontario K7L 3N6
Canada

Dear Mrs. Surridge:
Thank you for your letter to Dr. Bader dated June 23rd.
Dr. and Mrs. Bader are presently in England through the end of the month. He will respond personally upon his return to Milwaukee.

Best wishes,


> By Appointment Only
> ASTORHOTEI. SUITE 622
> g24EASTJUNEAUAVENUE
> MILWAUKEEWISCONSINUSA 53202
> TEL $414277-0730$ FAX $414277-0700$

# ALFRED BADER FINEARTS 

## August 1， 1995

Via Facsimile：613／545－6669

Professor Almeria Natansohn<br>Department of Chemistry<br>Queen＇s University<br>Kingston，Ontario K7L 3N6<br>Canada

Dear Professor Natansohn：

I am sorry that a long trip to Europe has delayed my responding to your kind letter of June 6th．
After discussions with Florence Campbell and Joyce Zakos，Isabel and I have decided to stay at Queen＇s for a few days after my 50th reunion，and I would be happy to give a talk at your regular seminar on Wednesday，October 25th．I would like to discuss the work of Anschütz， Couper and Loschmidt．

With all good wishes，I remain，
Yours sincerely，


AB／cw

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By Appointment Only
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924 EAST JUNEAU AVENUE
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TEL f1f 277-07.30 FAN f14 277-0700
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Queen's University
DEPARTMENT OF CHEMISTRY
Kingston, Canada
K7L 3N6

Dr. Alfred Bader
Astor Hotel, Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
U. S. A.

June 6, 1995

## Dear Dr. Bader:

As usual, it was a great pleasure seeing you and Mrs. Bader again in Guelph. My husband and I are reading your book and enjoying it very much.
I am writing to invite to you give a departmental seminar during your visit here this fall. You mentioned that you have a new lecture and, following the huge interest shown by the students and faculty at your last presentation, we are all looking forward to a most interesting talk.
We have reserved two possible seminar slots during our regular seminar program, which is held on Wednesdays at $11: 30 \mathrm{a} . \mathrm{m}$. We would prefer if you could choose between October 18 and October 25, because the largest number of faculty and students, undergraduates and graduates, will be able to attend. However, if you have other preferences regarding the day and/or the time, we would be very glad to accommodate any other time, provided we are notified in advance, so that we can publicize your talk appropriately.

I have contacted the Principal's Office in order to include your presentation here in your overall schedule and Joyce Zakos asked me to tell you that she is ready to coordinate your visit here as she did in previous years, and that everyone is looking forward to seeing you here soon.
Please let us know as soon as possible what would be your preferred date for a seminar in the department. Both I and Stan Brown, the incoming department head, are looking forward to your visit here.

With my best regards,
Alineria Nalaumh

Almeria Natansohn Professor and Acting Head

## FAX FROM

DR. ALFRED R. BADER
Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone: 414/277-0730
Fax: 414/277-0709

August 1, 1995

| To: | $\begin{array}{l}\text { Ms. Joyce M. Zakos } \\ \text { Assistant to the Principal } \\ \text { Fax: }\end{array}$ |
| :--- | :--- |

Dear Joyce:
Thank you so much for your fax of July 28th.
Isabel and I really have no great preference about being at Queen's for two or three days before or after the reunion, and so why not just pick the three days after. That way I could give the chemistry seminar on Wednesday, October 25th, talk to Bruce Buchan's group on Monday or Tuesday, and to art history and the Agnes Etherington Art Centre on any of these days.

Of course, we would like to spend an hour or so with Dr. Malcolm Peat, entirely at his convenience.

We would plan to arrive in Kingston around noon on Friday the 20th, stay at the Holiday Inn for the weekend, and if convenient to you, at Summerhill from Sunday afternoon until Wednesday or Thursday morning.

The daughter of an old friend, Jennifer Baronian, now at Concordia University in Montreal, has applied to Queen's. Is there any way that you might find out whether Jennifer has been accepted at Queen's? Unfortunately, she didn't go to a really good school, and so her chances might not be too good. Still, hope springs eternal.

With all good wishes, I remain,
Yours sincerely,

AB/cw

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Dr. Alfred Bader<br>2961 North Shepard Avenue<br>Milwaukee, Wisconsin 53211<br>A Chemist Helping Chemists

August 3, 1995

Professor Agnes M. Herzberg
Department of Mathematics
Queen's University
Kingston, Ontario K7L 3N6
Canada

Dear Professor Herzberg:
It was thoughtful of my oldest chemist friend, Norman Jones, to suggest you write to me. This is a wonderful conference with a most distinguished group of scientists meeting at the Castle.

Unfortunately, Isabel and I will not be able to join you
With many thanks for your thoughtfulness, I remain,
Yours sincerely,
$\mathrm{AB} / \mathrm{cw}$

## DEPARTMENT OF

MATHEMATICS AND STATISTICS
IEFFERY HALL

Queen's University
Kingston, Canada
K7L 3N6
Tel $613545-2390$
Fax 613 545-2964

July 26, 1995

Dr. A. Bader
Astor Hotel, Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
U. S. A.

Dear Dr. Bader,
Dr. Norman Jones suggested I write to you about a proposed conference at Herstmonceaux Castle which he thought you would be interested in attending.

A conference on Statistics, Science and Public Policy will be held at Herstmonceux Castle in Sussex, England from April 10-13, 1996.

The idea for this Conference arose because of many current issues including the lack of communication among statisticians and scientists, the difficulty and inaccuracy in communicating scientific results to the public through the media, recent interest in the support of science from the public purse, and whether science should be directed by the government. Because the use, understanding and dissemination of statistics is becoming more and more vital, we are arranging this conference.

We hope that you would be willing to participate in the conference.
Already many persons have agreed to participate if the conference goes ahead; see the attached list. We are also enclosing a tentative agenda for the meeting and we wonder if you would tell us if we have the right approach and if not, how we might change it.

The Conference would begin with dinner and a session in the evening of April 10 and would end after lunch on April 13.

Enclosed is a brochure describing the Castle and outlining the accommodations. You will sleep in an executive room in the castle; the amount of $\mathscr{L} 250.00$ will cover the cost of the room, three meals per day, the meeting room, etc. for the entire conference. Travel to and from central London, Heathrow airport and Gatwick airport will be arranged for each person upon request.

We regard this as a most important conference for individuals on both sides of the Atlantic who are interested in statistics, public policy, the media and for politicians and their advisers interested in science policy.

You will understand we are not a profit-making organization. We have been applying for funds from both industry and international foundations but have not succeeded as yet. You may take it for granted that if we obtain financial support, we shall take great pleasure in reimbursing your costs.

The number of participants will be limited to approximately forty.
We hope very much that you will be able to participate and look forward to hearing from you soon, and, if possible, no later than August 17, 1995.

With kind regards,
Yours sincerely,

Agnes M. Herzberg (Professor)

AMH:jn
Encl.

## STATISTICS, SCIENCE AND PUBLIC POLICY

Herstmonceux Castle from April 10-13, 1996

The following have agreed to participate:
Professor Sir Michael Atiyah, President, Royal Society of London, Master Trinity College and Director, Newton Institute for Mathematics;
Professor G. A. Barnard, University of Essex;
Mr. P. Calamai, Editorial Pages Editor, Ottawa Citizen;
Professor Sir David Cox, past Warden, Nuffield College, Oxford;
Professor H. E. Daniels, University of Cambridge;
Professor Sir John Kingman, Vice-Chancellor, University of Bristol;
Mr. I. Krupka, Executive Secretary, Pest Management
Secretariat, Ottawa;
Professor J. F. Lawless, Past President, Statistical Society of Canada;
Mr. W. Leiss, Queen's University;
Professor J. Meisel, President, Royal Society of Canada;
Mr. P. Milliken, Member of the Canadian Parliament;
Professor L. A. Mysak, President, Academy of Science, Royal Society of Canada;
Professor D. C. Smith, past Principal, Queen's University; Professor A. T. Stewart, Queen's University.

Appendix<br>Statistics, Science and Public Policy Tentative Program

I. Why the media get it wrong?
II. Why is science not well publicized?
III. Public policy
(a) Role of government statistical offices
(b) Role of funding agencies
(c) Role of national academies
IV. Public policy - Implementation by Government
V. Scientists and statisticians
VI. Science and the public purse
VII. Hazards and risk
VIII. Concerns of scientists in public policy
IX. Statistics

- meta-analysis
- risk theory
- opinion polls
- importance of statistics in the gathering and analysis of data

|  | Day I | Day II | Day III | "Day IV |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  | Session B | Session E | Session I

OFFICE OFTHEPRINCTPAL

Auçust 3, 1995
Dr. Alfred R. Bader
924 East Juneau Avenue, Suite 622
Milwaukec, Wisconsin
USA 53202
Dear Dr. Bader,
Thank you for responding to my fax so promptly.
I have advised those concerned of the days you and Isabel will be at Queen's and available to spend time in the various departments.

Dr. Natansohn has confirmed October 25, 11:30am for your Chemistry seminar and also has scheduled a meeting for you with Dr. Stan Brown for 10:30am just before the seminar. An informal lunch in the lounge with the students will follow the seminar.

I expect to be in touch with others soon and will contact you for your approval as the schedule develops.

Clairc and Bill Legeett also plan to host a dinner party for you and Isabel at Summerhill and of course we will schedule some time for you to meet privately with Bill as well.

Shelagh McDonald, the Assistant Registrar in Admissions, has been keeping Dr. Legeett informed of the process regarding Jennifer Baronian's application for admission. Shelagh tells me now that an offer of admission has been made and Jennifer has accepted. She should be at Queen's this Fall.

With best wishes.

JZ:ls
Yours truly,


Assistant to the Principal

## FAX FROM

DR. ALFRED R. BADER<br>Suite 622

924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone: 414/277-0730
Fax: 414/277-0709

August 25, 1995
Page 1 of 2
$\begin{array}{ll}\text { To: } & \begin{array}{l}\text { Ms. Joyce M. Zakos } \\ \text { Assistant to the Principal }\end{array} \\ \text { Fax: } & \text { (613) } 545-6838\end{array}$

Dear Joyce:
Thank you for your most helpful fax of today, but why the formality of calling me 'Dr. Bader'?
In a way your fax is scary, because clearly we will be over-fed!
To give quick answers to most of your questions:
All of the meetings sound fine, though if we accept Professor Brown's invitation to dinner, it means that we will have to stay at Summerhill until Thursday morning and then take a bus to Ottawa. Originally we had planned to leave on Wednesday, but of course, we would like to accept Professor Brown's invitation.

Isabel just talked to her sister, Marion, who will be happy to join us, coming to Kingston from Ottawa around Sunday noon.

The lecture in art history is entitled "The Detective's Eye" and the lecture in chemistry "Archibald Scott Couper and Josef Loschmidt: Out of the Shadow".

We plan to arrive in Toronto on Wednesday morning, October 18th, stay at the Chelsea Inn and come to Kingston by train on Friday morning. Thus, if Florence Campbell would like to arrange for some meetings in Toronto on Wednesday afternoon or Thursday, that will be fine. The same applies to meetings in Ottawa on Thursday afternoon or Friday, October 26th and 27th. Regarding Florence's suggestions $2 \mathrm{a}-\mathrm{e}$, these will all be fine. I may just require a throat lozenge to be able to continue speaking.

Of course, we would also like to accept Florence's invitation for dinner, but I'm not sure whether the art historians have anything arranged.

Ms. Joyce M. Zakos
August 25, 1995
Page 2

Regarding the Alumni Weekend, we would certainly not want a car and driver. Leave such amenities to people who are retired!

I have already sent in two forms and two checks for the Science ' 45 reunion, but don't have the details here at my office. Regarding 4 b , we would, of course, like to spend as much time as possible with other Science ' 45 men, but I don't know whether a luncheon is planned for Sunday.

There are two students I would like to meet: One is Jennifer Baronian, who has just been admitted to Queen's, and the other is Melissa Kluger. She is the daughter of an old friend, Professor Ron Kluger in the Chemistry Department at the University of Toronto who has just won the Bader Award of the Chemical Institute of Canada.

As you know, we enjoy having a full day, but it's always nice to have 30 to 40 minutes before dinner just to stretch out and relax. And talking of relaxing, we do, of course, hope to have some time with Cathy Perkins. And of course, we very much want to spend time with Anndale and David McTavish, Volker Manuth and Doug Stewart.

With many thanks and all good wishes, I remain,
Yours sincerely,


THE PRINCIPAL
AND VICE-CHANCELLOR


Queen's Uriversity Kingstor, Canada K7 3N6
Te) 613 545-2200
Fax $613547-6838$
-...

August 25, 1995

There are a few more questions for you as well.

1. If your travel plans would allow, Florence Campbell asks if you would agree to a few meetings in Toronto and Ottawa on your way to Kingston and/or on departure. We would arrange associated travel.

## Toronto:

a) A Chief Executive Officer who may be Chairman of the Herstmonceux Campaign.
b) The Honourable Marilyn Mushinksi, the new Mirister of Culture, Tourism and Recreation.

## Ottawa:

a) The Honourable Art Eggleton, President of the Treasury Board

These meetings would depend on the availability of the individuals as well as yours.
2. Florence also asks if you would be interested in a few additional campus events. Specifically:
a) interview with Boris Castel, Editor of the Queen's Quarterly.
b) reception for past and prospective students of the ISC
c) informal meeting with Advancement staff in Summerhill Parlour (briefing on highlights of activity).
d) CBC radio interview (perhaps Momingside).
e) meeting with student leaders.

We will follow up on any of thesc suggestions that you feel worthwhile.
3. Florence also invites you and Isabel to join her and a small group for dinner at her home on October 24 if it fits your schedule.
4. Regarding Alumni Weekend
a) Would you like to have a car and driver to get you around or will you uses the buses available?

You should know that reservations have been made for you at the Holiday Inn for October 20 and 21 and arrangements will be made for late check-out on Sunday the 22 nd. We will also arrange to get you to and from the book signing in the Art Centre then to assist you with the move from the Holiday Inn to Summerhill that afternoon.
b) Plans will be made for lunch prior to the book signing unless you wish to make other arrangements or join your classmates for an informal farewell. (There will be someone to assist with the book signing activity.)
5. Are there others you wish to meet while you are here?
6. Are there guests you might suggest for any of these events and for the dinner at Summerhill?
7. Are there changes to the schedule required?

As the schedule develops, I am sure there will be more questions. Please feel free to pose your own questions as well.

I look forward to hearing from you at your convenience.
Yours sincerely,

$$
\begin{aligned}
& \text { Joyce } \\
& \text { Joyce M. Zakos } \\
& \text { Assistant to the Principal }
\end{aligned}
$$

yMZ:dsh
Encl.
BADER VISITT
October $20-25,1995$

| DATE | TIME | Event | prace | NOTES |
| :---: | :---: | :---: | :---: | :---: |
| Fri. Oct. 20 | -12:00 a moon | Arive IToliday Inn | Foliday Imı | Oet 20-22 <br> Alumni weekend highlights only. See detail on Alumni listing. |
|  | 1:00-4:00 p.m. | Class of '45 Registration and Tea | Hoilday Inn |  |
|  | 6:00 p.m. for 7:00 p.me. | Sci 45 Reception and Class Diuner (Class photo before dinner) | Holiday Inn |  |
|  | 8:30 p.m. | Principal's Ceilidh | Grant $\mathrm{H}_{2} 11$ |  |
| Sat. Oct. 21 | 1:00 p.m. | Football game (OItawa (2) Queen's) | Richardson Stadium West Campus |  |
|  | 6:00 p.m. for 7:00 p.m. | Principal's Dinner | Wallace Hall, jDuc |  |
| Sur. Ott. 22 | 12:00 noon-2:00 p.m. | Book signing | Agnes Etherington Art Centre | staff to be assigned, travel |
|  | Approx. 3:00 p.an. | Move from Holiday Yho to Summerthill |  | travel to be arranged |
| Mon. Oct 23 | 1:30 p.m. | Bill Leggett | Summerthill | or lunch? |
|  | 5:30 p.m. $6.00 \mathrm{p} \cdot \mathrm{m}$. | Leggetes to host diatner | Sumurertill | guest lists? |
|  | 8:00 p.m. | Ast History Lecture | Agnes Etherington Art Centre | title? <br> David Mc Tavish contact |
| Tues. Oet. 2.4 | 10:00 am. | Meet witl Matcolor Peat | Summertill? | flexible |
|  | 2:30-4.00 p.m. | lecture - School of business Ifisory of Sigra-Aldicich | Duming Auditoritm (to be conlfitmect) | Buces Buchan contact |
|  | 4:006 - s:of) p.me | Rexeption w/Business tavalty, aud students | Dumaing Iomuge |  |
| Wed. Oct. 25 | 10:30 a.m. | Meet with Stan Brown, Head, Department of Chemisty | Frost Wing ${ }^{\text {P }} 409$ | Ameria Natansohn contact |
|  | 11:30 a.m. | Chemistry Seminar | Frost Wing FG-15 | teter? |
|  | 12:30 p.as. | I.unch will Chenuisty depatentent students and others | Frost Wing rounge F4ll |  |
|  | Approx. 6:00 p,ome. | Dintuer, Chemistry finculy | Stan Browni's hiome. | pendity A \& I Bader response |

## Senior Alumni Tea \＆Registration 1920－1945 inclusive，Holiday Inn

 1：00－4：00 p．m．－Senior Alumni Tea－Bellevue Ballroom Holiday inn Refreshments－Displays include Archives，International Studies Centre and Alumni Services
－Tables will be set up in decades with proper signage for visibility
－Registration packages to be picked up，included in packages are：name tags，football tickets，dinner tickets，buttons，pins etc
－STAR students assist with boutonnieres and corsages and mill about with a polaroid camera for pics

Opportunity for Meetings／Free Time
－4：00－5：00 p．m．

## Science＇45 Class Dinner

－Holiday Inn Bellevue Ballroom South－6th floor
－Reception＠6：00－class picture taken
－Dinner＠7：00；Speakers include David Bacon（keynote）\＆Innes van Nostrand
－Faculty of Applied Science Reception 8：00－10：00 p．m．at the University Club，hosted by Dean Can Hamacher
－Principal＇s Ceilidh at 8：30 p．m．in Grant Hall
－Buses will be available toand from the Holiday inn
Oct 21

## Saturday＾Class Events

Class meeting 10：00 a．m．to 12：00 p．m．at the Holiday Inn，Martello Room，6th floor
－The Department of Chemistry Reception－10：00 a．m．to 12：00 p．m．in Room 413，Frost Wing
Stauffer Library－self guided tours with assistance from the STAR students
－11：00 a．m．Ceremony to mark the unveiling of the photos of Queen＇s WWII fatal casualties－J．D．U．C．
Buses leave Holiday inn for game，pick－up at half－time and after the game
－Football game－1：00 p．m．Queen＇s Golden Gaels vs．the Ottawa Gee Gees
－Buses leave campus to gàme
－Buses leave Holiday Inn approx．5：30 for Principal＇s Reception \＆Dinner
－Principal＇s Reception＠6：00 p．m．
－Principal＇s Dinner＠7：00 p．m．honouring all 50th Reunion attendees
－Buses leave Wallace Hall for Holiday Inn approx．9：30 p．m．－10：00 p．m．

## Oct 22

Sunday University Events
－Sunday Buffet－University club 10：30 a．m．to 1：00 p．m．
－Non－denominational Church service with Rev．Brian Yealland， 11：00 a．m．Grant Hall
－$\quad$ AMS Sidewalk Sale，University Avenue
Book signing
－Agnes Etherington Art Centre 12：00 p．m．to 2：00 p．m．－further details to come from Dianna Bristol and AEAC


DEPARTMENT OF CHEMISTRY
Tel 613 545－2616
Fax 6．13 545－6669

Queen＇s University
Kingston，Carlada
Kフレ 3．， 6

August 24， 1995

Dr．Alfred R．Bader<br>924 East Juneau Avenue，Suite 622<br>Milwaukee，Wisconsin 53202<br>U．S．A．

Dear Dr．Bader：
I am now settling into my new position as Head of the Department of Chemistry．I thought I would write to ask if you and Isabel would be able to join my wife（Donna），me，and the Chemistry Faculty for a dinner at our home on the evening of October 25 during your visit here．

We are looking forward to your visit，lecture in the department，and the possibility for some social interaction while you are here．

Sincerely，
Stan form
R．S．Brown
Professor and Head．
cc：Joyce Zakos
Assistant to the Principal

## FAX FROM

DR. ALFRED R. BADER
Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone 414-277-0730
Fax No. 414-277-0709
August 30, 1995
Page 1 of 3
To: $\begin{aligned} & \text { Mrs. Cathy Perkins } \\ & \\ & \\ & \\ & \\ & \text { Principal's Office } \\ & \end{aligned}$

Dear Cathy:
If only everyone had friends like you, the world would be a much better place to live in.
Thank you for your two-page fax of today.
To answer some of your questions:
Sandra Martin interviewed me at length in Sussex and then wrote a pretty good, long story entitled "Queen's and the Castle" in the July/August 1994 issue of Saturday Night. It included a preposterous, imaginary 'quote' about David Smith asking Isabel and me whether Queen's couldn't have the money instead of the castle.

The review was so long delayed because Professor John Nicolson was planning to write it, both for The Globe and Mail and for The Ottawa Citizen, and then he sadly died. I gave him the manuscript before the book appeared in print, and I am certain that his review would have been more correct.

As you know, I am a stickler for accuracy and am surprised at the factual mistakes in The Globe and Mail review. To mention one of several: As Sandra Martin wrote correctly in the Saturday Night piece, I found the obituary of Mrs. Martin Wolff in the Montreal Gazette, not of Mrs. Sarah Wolff. Unimportant and careless.

Of course, I know that I am not a writer of competence. Who has ever heard of a Queen's engineer being one? But I did want to write a detailed history of the fine chemical business between 1950 and 1990 and a lot of details about the paintings that I hope will come to Queen's. My very competent literary agent warned me that this book should really be three books, and so would fall between chairs.

## Mrs. Cathy Perkins

August 30, 1995
Page 2

I am afraid that Isabel's nor my English is good enough to know what Sandra Martin means when she writes that the title is "part oxymoron, part downer". By now, thousands of chemists have looked at the book, many have read it, and yet none have said that. Many of my friends are so straightforward that they surely would have if it had occurred to them.

What do you make of that suggested TV show in Toronto? The interview with Vicky Gabereaux in Vancouver was pleasant and straightforward, but if Pamela Wallin is like Sandra Martin, maybe I should decline.

We so look forward to seeing you in October.
Fond regards, as always,


AB/cw

## Fabrikant

university in frustration before the end of his term.

If Sheinin was hoping for support from Kenniff, she didn'r get it. So she sertled for relling the deparment that if it hired Fabrikant, he was therr problem. She added a nider to Fabrikant's contract. He would have 10 wair three years before he could be considered for tenure. His new contract would run two years, until June, 1992, at \$59,677 a vear; the possibility of excension would come up for review in the fall of 1991.

In the spring of 1991 , the department personnel committee awarded Fabrikant a merit increase, the highest of anyone in the deparment, in recognition of the excellence of his work as a teacher and researcher. He responded by making fresh demands: he asked Osman for a four-month paid leave to accept a \$4,500-a-month fellowship in France. The request was denied on the grounds that it contravened university policy. He couldn't be paid twice, but he could, if he wished, take a leave of absence. In July, he informed Seshadri Sankar that he'd been awarded a $\$ 10,000$ grant by NASA, which could evenrually lead to a much larg. er grant. He wanted to drop all his work for CONCAVE to devote his time to his new project, this despite his contractual agreement to do research relevant to CONCAVE. In early October, he asked Osman for permission to use a $\$ 7,000$ research grant he'd received from the internal granting system of the university to purchase a release from his teaching responsibilities given the demands of his research work. This, in the circumstances, was outrageous. Osman called Fabrikant to say his request violated both university and federal regulations. Research funds had to be used for research. "Are you trying to scare me?" Fabrikant replied. "I am not scared. I wrote a letter and I want a written reply.

Fabrikant's petty insolence cost him a major ally - only weeks away from having his appointment reviewed. Osman wrote a stiff note informing him that what he was proposing was in fact illegal and upped the ante by requesting a detailed report on his future teaching goals. Fabrikant responded, saying he'd been told that Tom Sankar had once bought a release from reaching, and demanded an apology. He reminded Osman of the merit award he'd recently been given and went on to say that he planned to be on sabbatical the following year. (The university didn't believe he was entitled to one.) Osman went through Fabrikant's file and found minor discrepancies in his résumés. He asked Fabrikant for proof of his academic qualifications. Fabrikant responded wich (Continued on page 56).

# Queen's and the Castle 

Snuggled tightly into a basin on the Sussex. Downs on the south coast of England since before Gutenberg ser up his princing press or Columbus ser sail from Spain, the moared castle of Herstmonceux has passed through more owners than a cat has lives. In its most recent incarnation, Herstmonceux has been given to Queen's University in Kingston, Ontario, by a mysterious alumnus named Alfred Bader. He reportedly paid £4-million (\$8million) for the property and threw in another $£ 2$-million for renovations. What kind of person spends $\$ 12$-million on a castle. only to give it away? The answer is as labyrinchine as the castle, and every bit as haunted by ghosts.

Last July Queen's celebrated its benefactor and his far-flung bequesr by holding a Bursary Ball at the castle and by opening the grounds the next day for a "Medieval Pageant and Family Fayre." On the eve of the ball, I set off in a hired car from coastal Newhaven to drive the fifteen miles to Herstmonceux for a tour of "the hidden castle," as the locals call it. Ninery minutes later I was still roaring past signposts, careering around war memorials, and brushing by clumps of rainbow-coloured hydrangeas, frantically scanning the horizon for a glimpse of turret. Finally, I came upon the discreetly marked driveway that courses chrough Herstmonceux Park. There were thickets of trees, a herd of tame decr, and rolling lawns, bur srill no turrets. And then, over a rise and there it was, the epitome of romance.

A Romanesque bridge crosses a wet moat leading to the entrance portals. The main building, which was constructed mostly of brick in 1441, evokes a scaleddown Hampron Court, although it predates that royal palace by nearly seventy-

Lots of university
graduates give cash donations to
their alma mater.

Alfred Bader sent

his a castle

five years. Four looming towers mark the corners, and, for good measure, there are battlements, a dungeon, a central courtyard, and two ghoses - one of each sex. "The Grey Lady" is said to be Grace Naylor, a young woman who may have been starved to death in 1727 in one of the cowers by her wicked governess. The other (usually) headless appartion is a drummer who beas a ghostly tattoo along the southern battlements. He may have been summoned as a hex by Viccorian smugglers who stored contraband in Herstmonceux.
Behind the massive crenellared castle, there is a grassy ditch, or dry moat, that gives way to a two-levelled walled garden that has yew hedges, flagged walks, a radiant herbaceous border, and sumpruous rose gardens. Elsewhere in the grounds are an avenue of sweet chestnut trees some 300 years old, two ornamental lakes, and a Georgian folly. From the front, the folly has the proportions of a starely two-storey hnuse; in fact it is no more than two skinny rooms deep, as shough it had been squished like an accordion.

Even more incongruous are the six domed freestanding telescopes, sprinkled on the site like giant lawn ornaments, which date from one of the castle's previous incarnations
by Sandra Martin
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## OFFICE OF THE PRINCIPAL

August 31, 1995

Dr. Alfred Bader
Astor Hotel Suite 622
924 East Juneau Aycnue
Milwaukee, WI 53202
U.S.A.

Dear Alfred:
I have abandoned formality!
Thank you for your "quick answers" to most of the questions directed at you.
Professor Brown will be pleased to know that you and Isabel (and he extends his invitation to Marion Dick) are accepting his invitation to dinner. Summerhill hospitality through to Thursday, and longer if you wish, is not a problem.

Claire and Bill are pleased to know that Isabel's sister, Marion, will join you at Summerhill. They also had planned to invite the two students, Jennifer Baronian and Melissa Kluger to the Monday evening dinner at Summerhill. However, I see Florence has suggested she include them in her invitation. Your advice please.

Thank you too for the titles of the two lectures which I have passed on to the relevant people.

Florence Campbell has started the wheels turning to arrange the Toronto and Ottawa meetings as well as the campus events she suggested. (Florence will be sure there is always a throat lozenge at hand.) Once we know about the Toronto/Ottawa meetings, we can then arrange the associated travel for you and others who may be involved.

Dr. Alfred Bader

- 2 .

August 31, 1995

David McTavish had plarned to invite you for dinner on Tuesday, October 24. He did not when he learned that Florence hoped you would accept her invitation for the same evening. However, David tells me he is planning a Sunday evening dinner to which he will invite the art historians including Volker Manuth and Doug Stewart. I understand David has called you already about this (more food!)

I have asked Innes van Nostrand, Dixector of Alumni Affairs, to follow up on your comments about the Alumni Weekend events including the lunch prior to the book signing. He will check the records to see what you may have signed up for and let me know if he needs any more information from you or about your schedule. I see from the "schedule of events" (which I have attached for your information) that there is a brunch on Sunday from 10:30 to 1:00 p.mn. at the University Club just a short walk from the Art Centre.

Bill received today a note from David Smith asking that some time be scheduled for you and Isabel to meet with him and Mary and this will be done.

In putting together your schedule, $I$ will keep in mind that you wish to keep 30-40 minutes before dinner as relaxing time. A very good idea since it seems you will indeed have very full days.

Cathy asked me to let you know that she too is looking forward to some relaxing time with you, Isabel and Marion.

As events and meetings are scheduled I will keep you posted.


JMZ:dsh
Encls.

|  |  |  | Contact：Florence C＇ampoll | Comact：Ilorence Campbell |  |  |  |  |  |  |  |  |  | $\frac{5}{2}$ |  | YSURE LJN PUEG IDEJUON | $\begin{aligned} & \frac{4}{0} \\ & 0 \\ & \tilde{2} \\ & \hline \end{aligned}$ | Contact: Bnuce Buchan |  | Almeria Natansohn contact |
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|  | ${ }_{2}^{6}$ |  | $\begin{gathered} \text { c } \\ \text { B } \\ 0 \\ 0 \end{gathered}$ | $E$ <br>  <br>  | 들 | $\text { min } A x p][O I I$ | $\begin{aligned} & \text { E } \\ & \text { E } \\ & \text { 感 } \\ & \text { ? } \end{aligned}$ | Grant Hall | $\begin{aligned} & \text { Richardson Stadium } \\ & \text { West Campus } \end{aligned}$ | Waltace Hall. JDUC. |  |  | McTavish home | $\begin{aligned} & \text { 를 } \\ & \text { 悹 } \\ & E \\ & \text { E } \end{aligned}$ | $\begin{aligned} & \text { E } \\ & \text { E } \\ & \text { E } \\ & \text { E } \\ & \text { W } \end{aligned}$ |  | $\begin{aligned} & \text { N } \\ & \text { = } \\ & \text { E } \\ & \text { E } \\ & \text { E } \\ & \text { W } \end{aligned}$ |  |  |  |
|  | $\sum_{i=2}^{2}$ | Arrive Toranto |  | Available for Toronto meerings |  | Ead．pue monnulsigay $5 \boldsymbol{p}_{1} 10$ ssery |  | Prircipal's Ceilidtı |  | Priscipal’s Dinner | Book signing |  |  | $$ | Leggetts to hast dinner | Art History Lecture "The Detcctive's Eye" |  |  |  |  |
|  |  | ह゙ | 它 | $\begin{aligned} & i \\ & \stackrel{\pi}{\pi} \\ & = \end{aligned}$ | $\begin{aligned} & \text { 픙 } \\ & \text { ? } \\ & \text { ? } \\ & \text { 운 } \\ & \hline \end{aligned}$ | $1: 00-4: 00 p \mathrm{~m}$ | $6: 00 \text { p.m. For } 7: 00 \mathrm{p} . \mathrm{m} .$ | $\begin{aligned} & \dot{B} \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  | $\begin{gathered} \text { E } \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{gathered}$ | $12: 00 \text { noon - 2:00 p.m. }$ |  |  | $\begin{aligned} & \dot{\mathrm{E}} \\ & \dot{\mathrm{i}} \\ & \stackrel{y}{-} \end{aligned}$ |  | $\begin{aligned} & \dot{B} \\ & 0 \\ & 0 \\ & \infty \end{aligned}$ | $\begin{aligned} & \text { हi } \\ & \text { ㅇ } \\ & \dot{8} \\ & \dot{\theta} \end{aligned}$ | $2: 30 \cdot 4: 00 \text { p.m. }$ | $4: 00-5: 00 \text { p.m }$ | ¢ |
|  |  | $\begin{aligned} & 3 \\ & \hdashline \\ & 3 \\ & 3 \\ & 3 \\ & 3 \\ & 3 \end{aligned}$ |  |  | $\begin{aligned} & \text { 8 } \\ & \text { 甘 } \\ & \text { E } \\ & \text { E } \end{aligned}$ |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { N } \\ & \text { B } \\ & \text { B } \\ & \text { B } \\ & \hline \end{aligned}$ |  |  |  |  |  | 5 0 0 0 3 3 |


| BADER VISIT October 20-25, 1995 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 11:30 a.m. | Chemistry Seminar, "Archibald Scott Couper and Josef loschmidt: Out of the Shadow" | Frost Wing FG-15 |  |
|  | 12:30 p.m. | Iunch with Chemistry department students and others | Fimst Wing Lounge F411 |  |
|  | Approx. 6:00 p.m. | Dinner, Chemistry faculty | Stan Browt's home |  |
| Thurs. Oct. 26 | a. 1 m . | Depart Summerkill for Ottassa |  |  |
|  | p.m. | Available for Outawa meetings | Ottawa | Contact: Norence Campbell |
| Fri. Oct 27 | All day | Available for Ouwa meetings | Otizua | Contact: Floresces Camphell |

# Alumni Weekend 1995 <br> October 20, 21, 22 <br> Schedule of Events, Class of Science 1948 

Friday, October 20
1:00 - 4:00 p.m.

1:00-4:00 p.m.

5:00-6:00 p.m.

6:00 p.m.
7:00 p.m.

8:15 \& 8:30 p.m.
8:30 p.m.
$9: 45 \& 10: 15 \mathrm{p} . \mathrm{m}$.
Saturday, October 21
12:10 \& 12:40 p.m. 1:00 p.m.

2:15 p.m. (approx.)
2:30 p.m. (approx.)
4:00 p.m. (approx.)
5:30-6:00 p.m.
6:00 p.m. $\cdot$ on

Registration. Holiday Inn, Bellevue Room, 6 th Floor
Alumni Tea hosted by the Student Team on Alumni Relations, Holiday Inn, Bellevue Room, 6th Floor

Class Photos (alumni only). Holiday Inn, Holidome, 1st floor, near the pool
Arts \& Commerce 1945 5:10 p.m.
Science 1946 6:30 p.m.
Meds $1945 \quad$ 5:50 p.m.
Cocktails Martello Room, 6th Floor Holiday Inn
Sclence 1945 Class Dinner, Martello Room, 6th Floor Holiday Inn

Buses leave the Hollday Inn for transportation to Grant Hall
Principal's Ceilidh, Grant Hall, Queen's University Queen's Bands, Cheerleaders, finger foods and eash bar

Buses leave Grant Hall for transportation to the Holiday Inn

Buses leave the Holiday Inn for the Football game
Football Game
Queen's Golden Gaels vs. Ottawa Gee Gees Richardson Stadium, West Campus

Half Time Parade of returning Alumni
Buses leave after half time parade for the Holiday Inn
Buses leave football game for the Holiday Inn
Buses leave Holiday Inn for Wallace Hall
Principal's. Reception and Dinner, Honoring the Classes of Arts \& Commerce '45, Meds '45 and Science '45. Wallace Hall, John Deutsch University Centre (formerly the Student's Union).

## Sunday, October 22

| 10:30 a.m. - 1:00 p.m | m. Sunday Brunch featuring a Prime Rib Buffet at the University Club (formerly the Faculty Club) 168 Stuart Street. (transportation not provided) |
| :---: | :---: |
| 11:00 a.m. | Non-denominational shurch service in Grant Hall with Rev. Brian Yealland |
| 8:00 a.m. -5:00 p.m. | m. AMS Sidewalk Sale, University Avenue |
| Faculty Events |  |
| Ats \& Science $\quad-1$ | - 10:00 a.m. Saturday. Reception in the Union Gallery, 1st Floor of the Stauffer Library. Join Acting Dean Les Monkman for coffee and pastries. |
| $\begin{array}{ll}\text { Commerces } & -9 \\ & \text { D } \\ & \text { Wl } \\ & \end{array}$ | - 9:00 a.m. Saturday. Receptlon with coffee and croissants, 2nd Floor Lounge, Dunning Hall. Keynote Address "Welcome to the Year 2015!" by Mr. Richard Worzel, Futurist and Consultant at 10:00 a.m. Dunning Auditorium. 11:30 a.m. Alumni BBQ at Victoria Park (comer of Alfred and Brock Streets). |
| $\begin{array}{ll}\text { Medicine } \\ & -4 \\ & \mathrm{jus} \\ \mathrm{Br} \\ & \mathrm{R}\end{array}$ | -4:00 to 7:00 p.m. Friday. Receptiom, Botterell Hall, 2nd Floor (on Stuart Street just east of KGH). A Continuing Medical Education Symposium and Continental Breakfast, Saturday from 8:00 to 11:30 a.m. in Botterell Hall, Room B139. Registration fee is $\$ 80,00$. Please find the registration form enclosed. |
| Science -8 | - 8:00 to 10:00 p.m. Friday. Reception the University Club, hosted by Dean Carl Hamacher. |

* Business suit/Cocktail dress is suitabie attire for dinners.


## Press Release

## ALFRED FISHER

Alfred Fisher has taught at the University of Western Ontario, Acadia University, and the University of Alberta. He is currently Professor of Music at Queen's University, where he serves as Director of the School of Music.

His record as a composer includes commissions from Radio Telefis Eireann, Wayne State University, The Cork International Choral Festival, the International Suzuki Association, Canadian Music Centre, the Canada Council, CBC and others. His works have been performed and broadcasted throughout Canada, the Unitd States, the United Kingdom, Australia, New Zealand, Japan, Israel, and in Europe.

As a theorist and musicologist, Dr. Fisher has lectured at universities in Canada, the USA, and at meetings of a number of learned societies. He has published in Perspectives of New Music. Ethnomusicology in Canada Canadian Journal of Ethnic Studies Canadian University Review, Ex Tempore, Alberta Psychology and is a contributor to the Encyclopedia of Music in Canada. He also has a continuing interest in ethnomusicology and has delivered papers at the First Conference on Ethnomusicology in Canada, the Brandon Conference on Canadian Indian Music, and has published articles and reviews in the Journal of Native Studies.

Dr. Fisher continues to maintain an active involvement in performance as a piano soloist, accompanist, and chamber musician. He is the recipient of a number of scholarships and awards as a pianist, including the Presser Foundation Prize. Major teachers have included David Burge, Pierre Luboschutz, George Crumb, Douglas Moore and Owen Reed. He holds the PhD in Music from Michigan State University.

# School of Music <br> Academic Development Plan 

Executive Summary

This Report explores a broad gamut of issues and concerns shared by members of faculty in the School of Music. It's goal is the articulation of a set of objectives and recommendations leading to their realization over the next five years. Flowing from the Mission Statement, these objectives range from the concrete to the speculative. They are in all cases, however, practical and within reach. While some recommendations are straightforward declarations of intent, others address matters of sufficient complexity as to require continued discussion and analysis before firm commitments are made. Having documented what action is to be taken, the "plan," then, is to move toward implementation while continuing discussion leading to further advancement in identified areas of concern.

Sections one and two provide context for a broad view of the place of music in the university and, more generally, in the world of scholarship. It also examines the conservatory/university dual orientation of the contemporary university music unit, strongly affirming that disciplinal inclusivity, as a normative pattern for Canadian universities, most adequately serves the interests of professional preparation and the expectations of all Queen's students. A secure grasp of this material is germane for the argumentation and recommendations to follow.

Ensuring the currency and vitality of curriculum has become increasingly challenging with the accerating pace of change over the breadth of the discipline. Section three documents the intention of the School of Music to preserve program flexibility while responding to emerging trends in the disciplines. Indeed, that response has been initiated in the areas of music education and music theory through success in the Curriculum Development Fund competition. The $S$ of $M$ is committed to advancement in curriculum that avoids quantum expansion but enhances currency of programs and efficiency in the dedication of time and resources. While responding to and selectively integrating emerging trends is accepted as an important value, the $S$ of $M$ intends to continue efforts to maintain opportunity for the study of
music for students throughout the university. It is a position that must be appreciated in the light of a primary commitment to the BMus program, continuing stress in funding/resourcing that program, and the typically heavy teaching loads of faculty in the S of M . This, and the fundamental mandate of all humanities and fine arts units -- "preservating of heritage" -is strongly affirmed in section 4.

Paralleling curriculum development, recommendations re. admission requirements, recruitment, and enrolment (section 5) are concerned with analysis of internal procedures/standards and the intention of the $S$ of $M$ to thoroughly analyse how best to adjust them to changing educational environments/expectations and opportunities.

Section six explores the area of research in music. It is approached from a premise, confirmed regularly, that infrastrustural and resource needs supporting research in the S of M are not well served. More fundametally, there is reason to suspect that the very nature of research in music may be weakly understood at Queen's. Recommendations strongly confirm the continuing commitment of faculty in all subdisciplines in the $S$ of $M$ to programs of research leading to publication, performance or presentation at the highest level and in the most respected venues. The recommendations also document the efforts that will be made to develop external sources of funding and to support a stimulating and enriching environment for research.

Section seven speaks not only to the ideal but also to the basic practicality of diversity in the S of M. It stongly endorses the Faculty of Arts and Science commitment in this area of concern. It is understood that what contributes most in the identification of Music as unique is applied music. Section eight details the reasoning and the logic that sustain the fundamentality of applied music in the training of musicians, in the life of the university, community, and the power/utility of musical performance in the positive representation of the university nationally and internationally.

# ACADEMIC DEVELOPMENT PLAN 

## SCHOOL OF MUSIC

## Preface

The need for a long range planning document for the School of Music was identified in the fall of 1992. A Long Range Planning Committee was struck and a report produced (winter '93).

The departmental Academic Development Plan commissioned by the Faculty of Arts and Science (fall 94) has provided an opportunity to extend and refine thinking and a vehicle for formulating recommendations.

It is understood that teaching and research can in some instances be effectively advanced without direct claims on resources. It is also recognized, however, that, in comparison with its sister institutions in Canada, the School of Music at Queen's has historically been understaffed and poorly resourced, factors which makes large areas of planning particularly challenging. This is, of course, only exacerbated by an environment of continued budgetary uncertainty. There is, however, a rich pool of intellectual and experiential resources represented in School of Music faculty. There is an an evolving consolidation and deep resolve to realize the University's three basic goals of significant accomplishment in teaching, research, and service as richly and comprehensively as possible.

### 1.0. Introduction and Mission Statement

While music as a field of academic inquiry is as old as the university itself and is rooted in the classical tradition as a defined area of intellectual endeavour, its entrenchment at Queen's is of relatively recent vintage.

Like many music units in Canadian universities, the School of Music emerged in the context of the quantum expansion of higher education of the late 60 's. In an attempt to provide a rationale for each of the music units established in Ontario universities during the 60 's, a major priority of Music at Queen's was deemed to be music education. This determination, however, was never formalized. It was, in fact, quickly broadened to include a remarkably inclusive faculty and program. Currently with a full-time faculty of 12 and part-time faculty of between 35 and 45 in a given year, the School of Music has earned a distinctive place for itself within the panoply of Canadian music departments.

The generality of its commitments is expressed in the School of Music Mission Statement, developed at the Planning Workshop of 23 February, 1995. The consolidation/selection process which led to the generation of the following statement began with a broad sampling of suggested mission statments submitted by full-time and part-time faculty, staff and students.

## School of Music Mission Statement

The mission of the School of Music is to create and foster a climate for scholarship, composition, and performance with the ultimate goal of producing accomplished musicians and scholars who will assume positions of leadership and continue to develop professionally and intellectually.

### 2.0 The Study of Music

The factors that have established the precedency of many departments at Queen's are those that also support the strength and productivity of the School of Music. Moreover, Queen's presents an array of historical and structural features that suggest a richness of potential for the study of music that sets it apart from other Ontario universities. It is the intention of the School of Music to build on these advantages in the shaping of a curriclum and research profile that is effective, practical, and distinctive.

Like the University itself, the School of Music is ample enough to offer a quite exceptional range of learning opportunities. Enrolment distribution for any given year ranges between 140 and 170 (BMus), 5 and 10 (BAH - Major MUSC), 25 and 35 (BAH - Medial MUSC), 25 and 35 (BA - Minor MUSC), and between 150 and 200 course registrations elected by non-concentrators. Neither numbers nor programme commitments are so massive, however, as to reduce adaptability and openness to change. Because of its size and like the University itself, there are narrow areas of academic specialization that are unlikely to be especially well represented in the profile of the School of Music. Yet, through singularity of vision and dedication, the School of Music has secured a respected and unique niche within the wide range of undergraduate music programs in Ontario. The School of Music is, then, well-positioned to consider a range of models in constructing future priorities and programs.

### 2.1 Music and Liberal Education

Over the years, the liberal arts "tradition" has been an important ideal in the structuring of undergraduate programs at Queen's. Historically, the study of music lies at the centre of that tradition. The justifications for this have not weakened at all over the hundreds of years that music has had a presence in universities. The study of music is not, as is sometimes assumed, conducted by induction and incantation. It has been and continues to be an enormously rigorous discipline, requiring the development of empirical, analytical, critical, philological, interpretive and digital skills. It is this understanding of the study of music as a fundamental component of intellectual maturity and cultural literacy that has supported its enduring place within the liberal arts ideal. It is a particularly critical understanding at Queen's in the following respects:
> * The School of Music acknowledges and wishes to preserve congruency in the broad educative mission of the University and the School of Music.

* The School of Music is commited to preserving access for all undergraduates at Queen's to the study of Music as a component of liberal education.
* Debate re. the "canon" in the social sciences and humanities is paralleled and intersected by debate within Music. Important questions re. the content of a "humanistic" or "broadly-based" curriculum are significant points of reference in discussion of curriculum in Music as in other fields. This discourse will inevitably be reflected in curriculum reforms in the School of Music.


### 2.2 Professional Preparation

Universities in N . America have attempted to bring together the university and conservatory traditions in offering the study of music in both its scholarly and practical aspects. While it is important to recognize that these are by no means mutually exclusive, the curriculum spawned by this marriage has become formidable in its massiveness, intensity and, on occasion, perceived dissonance between the two traditions. Overriding the dissonance and strengthening the bond is the fact that the study of music has by tradition been profoundly object-centered. Some would argue that this is entirely positive in that it situates the study of music such that it can serve professional goals most adequately. On the other hand, more narrowly object-centered training may isolate music from the larger learning context and further reduce the field of vision within the study of the object itself.

Ontario universities present an array of priority/structural models for undergraduate programs in music from the context-oriented program at York to the object-centered, rigorously professional program at Laurier. The School of Music at Queen's has, over the years, constructed and reconstructed programmes that provide breadth through the range of an integrated university/conservatory curriculum. The specific shape of that curriculum should not be viewed exclusively as an expression of educational philosophy. It is no less genuinely a representation of historic development reflecting decisions made in the context of the insufficiency of both faculty and physical resources.

### 3.0 The Current Programme and Its Strengths

Given the circumstances described above, the current programme has a number of remarkable features. While, like any curriculum, it requires adjustment from time to time, the major challenge faced by the School of Music is consistent delivery of the full range of offerings to both music majors and to the large number of students choosing music electives.

The last major revision of the BMus programme (1987) established a unique curriculum design for the BMus. Fundamental to the BMus programme is the absence of "majors." The majority of Canadian departments require students to declare a major in the first or second year (e.g. majors in voice or piano, musicology, theory/composition, music education within the BMus programme). Queen's has opted for a generic BMus with available concentrations. Such a system offers advantages of flexibility and breadth and presents fewer barriers and greater opportunity to explore new interests as they are encountered over the four years of the programme.

Countervailing the primary value of flexibility are "core" courses supporting the acquisition of basic technical competence and literacy. The continuing need for such courses is beyond argument. The definition of "core," not surprisingly, varies widely from department to department. A major challenge for every music unit is the delicate matter of rationalizing the size and content of the "core" in the light of new priorities and philosophies, newly emerging fields of study, current market realities, faculty complement and funding. The "core" at Queen's extends beyond the traditional regimen of basic musicianship, theory, history survey, applied music, and ensembles to include required courses in ethnomusicology and composition for all students in the BMus programme. The selectivity and comprehensiveness of the "core" at Queen's is one of the outstanding strengths of the School of Music curriculum. Queen's remains the only undergraduate programme in the country to include an ethnomusicology course (MUSC 289, World Musics) in the "core." In view of a developing commitment to internationalization, multiculturalism and interdisciplinary studies in universities across N. America, the early entrenchment of world music studies at Queen's is an indication of the progressive values that have always guided thinking about curriculum in the School of Music. It should be mentioned that the collection of world music courses for which MUSC 289 is a prerequisite is very well subscribed by students from other departments. Paralleling the commitment to world music is the outstanding opportunity afforded all students at Queen's to study composition. An encounter with the creative process is not the domain of the specialist at Queen's. Not only are all BMus students required to take a "core" course in composition (MUSC 350,

Composition), but the curious/motivated may also elect a composition course in the first year (MUSC 153, Composition Seminar) -- both, opportunities unavailable in other undergraduate programmes in Ontario.

A survey of all areas would reveal consistently dedicated teaching and excellent student accomplishment over the full range of curriculum. In fact, it is this very consistency that sharpens the distinction between the School of Music at Queen's and comparable Canadian institutions. Within a general context of strength there are areas that must be cited not only because they share in a generally high standard in both teaching and research, but also because they are exceptional in Canadian undergraduate curricula. Particularly well-recognized is the Queen's commitment and record of accomplishment in electroacoustic music and music technology. While this equipment intensive area has never had a dependable funding source, it has been sustained by the resourcefulness and determination of the two members of faculty active in the area. The Electroacoustic Music Studios at Queen's are amongst the most respected and productive in the country. The Music Technology area includes IDIS 301 (Audio Production), an interdisciplinary course established by the Council of Fine Arts but offered by the School of Music using School of Music technical facilities. It is the first of what is hoped will be a collection of interdisciplinary courses developed by the Council.

The School of Music has long been associated with progressive trends in Music Education. Our most heavily subscribed Music Education course (MUSC 132, An Introduction to Music in Education) is a refreshing departure from the traditional model for such courses. Course requirements include participation in a cooperative program involving the Kingston Symphony and two schoolboards. The cooperative organization has provided otherwise inaccessible learning experience for children, invaluable teaching experience for Queen's students at the beginning of their training, and the opportunity for the Kingston Symphony to reach out in the most positive and effective ways to the community. The music history component provides a very comprehensive regimen of "core" courses in the history of western music leading to an array of electives which, in many cases, parallel the research interest of the instructor. Both the "core" and elective courses attract a large number of non-music students. Unlike most undergraduate musicology programmes, numbers of Queen's musicology electives provide training in dealing with primary sources and demand a high level of sophistication in research methodology. Queen's is very exceptional in offering research methodology courses in both musicology (MUSC 385, Research Methods I) and ethnomusicology (MUSC 386, Research Methods II, and MUSC 489, Research Methods Studies III [field methods in ethnomusicology]) at the undergraduate level for students in the history concentration.

Regardless of career decisions made by students in music, a solid background in music theory is an absolute prerequisite to competency in all the subdisciplines. "Core" theory is normally comprised of a "basic musicanship" component covering ear training/sightsinging and keyboard harmony, plus a two or three-year harmony, counterpoint, and analysis component. While it is surely possible for certain undergraduate theory courses (particularly the "basic musicianship" courses) to be taught by non-music theorists, most Canadian music units of the size of Queen's have long since appointed scholars with doctoral degrees in the area of music theory to whom teaching in this area is assigned. While faculty in the School of Music have contributed significantly to the scholarly profile of Queen's, the absence of a productive scholar/teacher in music theory until 1993 has been a point of weakness.

Most Canadian music units offer first and second year "core" theory (MUSC 191 and 291 at Queen's) as a multi-sectioned course with no more than fifteen to twenty students per section or, alternatively, as a once per week lecture supported by labs/tutorials taught by faculty or graduate students in the field. With the staff limitations under which the School of Music currently operate, these courses are taught as non-sectioned lectures to classes as large as 75 or more. "Basic musicianship" courses are taught by adjunct faculty who, in most cases, have a primary interest in performance. A resolution to some of these long-standing problems is one of the goals of the School's Curriculum Development Project.

### 3.1 Initiatives in Programs and Curriculum

While it is recognized that the BMus curriculum has many strengths, it is also understood that the writing of an Academic Development Plan creates a valuable opportunity for faculty to review broad curriculum issues with a view toward renewal and advancement. It also provides an appropriate focus for revisiting concerns with curriculum/programme management and critically reviewing current structures, requirements, and teaching modalities such that the curriculum can be delivered with consistency and dependability. Perhaps most importantly, it has provided an occasion for analysis and discussion of very critical underlying questions. What is it that we wish a student to know when s/he graduates with a Queen's BMus? What should be the determinants in forming a response to this question -- newly developing fields and specializations? funding context for Ontario universities? new educational priorities reflecting the current composition of School of Music faculty? "market trends?" (market environment in the concert industry -- orchestras and other standard performance formats, concert attendance, audience development and preferences, public and private support for concert-giving organizations, the environment for new music, music technology, prospects for music in the public schools, employment patterns in academia, emerging fields in musical scholarship,
interdisciplinarity, changing expectations re. philosophical, historical, linguistic, empirical and critical studies in the preparation of academics in music and etc.).

Reflecting concern with all of the above, the goal of highest priority as identified at the Planning Document is "to examine and revise our programs." This has been vigorously pursued in a series of meetings of School of Music Council through the months of April, May, and early June and will continue in September of 1995. Initial discussions have dealt with matters of principle and philosophy, some of which are identified above. It is the intention to direct this discussion toward more specific considerations that will, amongst others, include the following:

* Examine career patterns and relate to course offering/curriculum revision.
* Examine programme structures.
* New courses will replace existing courses. Curriculum changes will not result in increased teaching hours. Wherever possible, an overall reduction in teaching hours as represented in the curriculum of each area will be favored.
* Create programme designs that are maximally flexible.
* Determine effective balance between scholarly and practical areas.
* Seek out opportunities for interdisciplinary teaching and research.
* Maximize student learning/performance.

The School of Music 94/95 submission to the Curriculum Development Fund competition met with success and has been partially funded. Awarding of this grant has made it possible to advance curriculum/programme planning in the areas of music education and music theory in a number of ways. In the music education area, the grant provides initial funding for a needs assessment, forming the first stage of a much larger, comprehensive music education curriculum revision project. Through a questionnaire sent to students, graduates, employers (school boards in Ontario), and professional associations, e.g. OMEA and CMEA, members of the Music Education SubCommittee of the School of Music Curriculum Committee will be in a position to better determine the specific areas of the current curriculum in music and music education that require revision. It is hoped that success in securing continuing funding over the next several years will make it possible
for the Sub-Committee to evaluate and advance the project through the stages of curriculum revision, implementation, development of a concurrent education programme in Music, and to investigate and acquire the technology and other materials necessary to support the new curriculum.

A member of the Music Theory Sub-Committee of the School of Music Curriculum Committee has been given a 0.5 course release creating the time to investigate the potential of new software products in the area of music theory and basic musicianship. This project, which is based on the premise that the School of Music will continue to be unable to section its large "core" courses (MUSC191, 291, 343), will explore the potential for computer-aided instruction in such basic musicianship courses as MUSC127, 227 (Ear Training and Sight Singing) such that these courses, currently sectioned, may be offered as large unsectioned courses with the savings in instructor hours being then dedicated to sectioning 191, 291, 343 -- courses in which regular in-class, instructor-guided work is required -- in the opinion of many, by definition.

### 3.2 Emerging Trends

Emerging trends in Music generally parallel those identified in the "Responding to Social Change" section of the Plan for Development in the Faculty of Arts and Science of September 94. Other trends are specific to Music but even in these instances usually reflect a more general shift in focus in the humanities and social sciences.

While competency in music is developed cumulatively and basic skills and information require years of training beginning well before university entrance and continuing most of the way through a four-year programme, curriculum, particularly in an undergraduate department, does not normally reflect the "advance edge" of scholarship. The School of Music is exceptional, however, in being able to count amongst its faculty, a number of scholars who are both actively engaged in newly emerging methodologies and who are in a position to communicate specialized knowledge and explore the value of new theoretical disciplines in the classroom. A number of courses in the School of Music routinely attract a large number of enrolees from other departments precisely because of these unique opportunities. These include such developments as:

[^1]* New technology and its application in composition (composition)
* Theory of rhythm (music theory)

It is the intention of the School of Music to preserve these singular opportunities for both faculty and students and to maintain, insofar as is possible, a curriculum that will enable the transferral of research interests to the classroom.
"Social change" is an important value in the School of Music and there are numbers of creative responses in which the School of Music has an interest. They include the following.

## Interdisciplinarity

There are a number of areas of importance within the School of Music curriculum that may be said to be "inherently interdisciplinal." Lecturing in musicology must necessarily involve work in cultural history. For example, lecturing on the "Roman School" requires a great deal more than a knowledge of modal counterpoint. To be effective, it must synthesize and integrate knowledge of Renaissance humanism, theories of rhetoric, aesthetics, reformation history, the counter reformation, Renaissance architecture, and etc. While music theory is more unitarily focussed on the object of study, it is by no means limited in intellectual scope, being even in its beginning stages an essentially systematic, analytic and even empirical study. Scholarship in music theory frequently operates within a philosophical frame of reference while scholarly interests in music education have recently moved much closer to the area of social criticism. Insightful performance is the product of a complex synthesis, involving intellectual grip, emotional/spiritual comprehension, and refined physical control which itself is as much the product of analysis and calculation as of sheer physical development. In discussion leading to this document, it has many times been noted that such inherency is not simply "innocent" in the sense of its being unavoidable, nor is it a convenient idealization. It is a critical and fundamental dimension of the teaching and comprehension of music -- an understanding that is much valued and deliberately cultivated in the School of Music. The location of the study of music at the nexus of the humanities, social sciences and empirical studies is particularly important in view of the demanding nature of the BMus progamme, which traditionally has placed fairly astringent limits on the number of non-music electives that may be taken.

Both "inherency" of intellectual reference and the location of music within the broader frame of the humanities, social sciences, and empirical studies potentializes linkages between music and other disciplines. With a
continuing commitment to strong undergraduate programmes and the priority value of inderdisciplinal studies as documented in the Plan for Development in the Faculty of Arts and Science, Music at Queen's is particularly well placed to make a valuable contribution.

> * In acknowledging this, the development of interdisciplinary studies over the next two to four years is identified as a goal in the School of Music "Planning Document" of February 1995.

This direction has already been established in the creation of IDIS 301, a course developed by the Council of Fine Arts, first offered in 1992. The course will be offered again in 95/96, taught by a senior faculty member of the School of Music. Music has a number of courses cross-listed with Women's Studies and Canadian Studies. With its linkages to art, drama, film, history, philosophy, literature, psychology, sociology, anthropology, culture studies, Native studies, physics and computing science, the potential contribution of Music to interdisciplinary studies is virtually open ended. Heavy teaching, research, and administrative responsibilities and the relatively small complement of full-time faculty in the School of Music combine to severely limit freedom to advance interests in interdisciplinarity. The commitment of the Faculty of Arts and Science to "facilitate interdisciplinary activity by reducing traditional barriers to cross-departmental activities," as documented in the Faculty Plan (p. 14) is appreciated as particularly significant for faculty in the School of Music.

## Internationalization

The Fine Arts are by definition the most portable of the University's sectors. This is most expressly true in Music. Composers associated with Queen's have had works performed throughout the United States, Latin America, Europe, Eastern Europe, the Middle and Far East. Queen's faculty in applied music have as well been heard globally. Scholars in the School of Music publish in significant Canadian, American, and European journals, participate regularly in research and conferences which bring them to Europe and elsewhere. While student exchange programmes are a new undertaking in the School of Music, they clearly hold much potential -- particularly if they are expanded to include the Continent and Asia.

The curriculum in Music directly reflects the international dimension. Most oustanding in this respect is the commitment to ethnomusicology (world music). Beyond the "core" survey course in ethnomusicology (MUSC 289), Queen's offers training in ethnomusicological research methods plus a broad selection of elective courses including courses in popular and folk musics. It should be mentioned that Queen's is unique in Canada in offering undergraduates training (superb training) in veena (MUSC 189, Techniques and Methods of Non-Western Instruments), an instrument used in the
classical music of India. Queen's also offers students the opportunity to study the music of the Native People of Canada. It is hoped that this can be complemented by developing opportunities for Native students in Music over the next several years.

The School of Music recognizes the growing importance of internationalization in the University. Notwithstanding slippage in funding that would tend to stimulate the advancement of internationalization, the School of Music remains open and positively disposed to expanded international participation of faculty in scholarly and artistic pursuits, and to strengthening the international dimension of its curriculum.

## Continuing Education

The School of Music has made an effort to provide a selection of evening courses for some time. Normally, these are courses available to students in other departments or to part-time students with an interest in the area of study. Music courses have also been offered in Belleville and Brockville.

The University's changing demographic pattern suggests that the School of Music may be in a position to serve the interests of mature students returning to university on a part-time basis with the objective of earning a degree, expanding professional qualifications, or simply electing courses in areas of special interest. Music tends to be an area of intense personal attachment that is pursued through concert going and reading but for which formal study is often delayed until later years when family obligations may be less pressing. Notwithstanding the interest and potential of continuing education in the School of Music, it can be satsfactorily addressed only in the context of a process of rationalization and prioritization of emergent/ competing resource and faculty priorities as documented in this report -- a process that will be a primary goal for the School of Music over the next five years.

### 3.3 Preserving Flexibility

Flexibility in the context of comprehensivity has long been recognized as an outstanding value of the Queen's curriculum. It is widely understood that it is this very flexibility that distinguishes the Queen's BMus programme from the convential programmes that abound in Ontario universities. In this respect, it provides Queen's not only with definition as an institution but a "competitive edge" in attracting the interest of many of our strongest applicants.

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Given developments described under 3.2 above and the unit's success in the Curriculum Development grants competition, the effort to revise programmes will be undertaken not only to ensure that educational objectives and current expectations in the profession are met, but that flexibility as an independent value is preserved and enhanced wherever appropriate.

### 4.0 Curriculum for Non-BMus Students

The School of Music serves the interests of hundreds of students throughout the university in any given year by making a selection of courses at all levels available to non-BMus students. This is not understood as a "service" in the School of Music, but a matter of dedication. That the study of music has been fundamental to the development of intellect and cultural literacy for 2,500 years and has occupied an honoured place in university curriculum since its inception is the appropriate framework within which this dedication is to be understood.

The provision of a breadth of course selections for non-BMus students has been an important consideration in planning each year's course offerings, although limitations created by the number of faculty members for such course assignments in any given year varies considerably. The School of Music also provides broad opportunity for students who wish to perform in ensembles. The performance level and expectation of artistic accomplishment in each of the ensembles is quite high. There is every indication that the rewards to students are no less high. In addition to "standard" ensembles such as orchestra, bands, and choirs, the School of Music includes many nonBMus students as members of the jazz ensemble, the Collegium Musicum, chamber orchestra, and a variety of smaller groups from percussion ensemble to flute choir. Significant numbers of non-BMus and, in particular, medial majors and others anticipating a career in public education are enrolled in music education and "techniques and methods" courses providing students with basic training in orchestral instruments and voice. Courses in composition, particularly electroacoustic composition, are well subscribed by non-BMus students at all levels as are computer-centered and music technology courses. Other areas of special interest such as feminist theory and music, popular, folk music and jazz, as well as "world music" courses are much favored by non-BMus students and offered on a regular basis. Finally, it should be mentioned that all "core" courses in the BMus programme as well as many advanced courses in musicology and theory are well subscribed by non-BMus students.

Providing this wealth of opportunity for non-BMus students is intensely challenging for a unit that is necessarily resource intensive. Because of the nature of the discipline itself, the School of Music is unable, even with the greatest efficiency, to produce teacher/student ratios that are other than the
highest or amongst the highest in the university. Particularly in respect of the burden shouldered by instructors in the currently unsectioned music theory and music history "core," the very large population of non-BMus students in these courses, while often including some of our best students and surely not a problem in themselves, creates a strain that has very serious impact on all aspects of the School of Music operation from resource and time distribution to research productivity. Perhaps the challenge of greatest significance will be rethinking a curriculum package that will not diminish resources dedicated to support of the BMus programme, while continuing to provide learning opportunities in music for non-BMus students. The curriculum development grant, particularly if support is maintained over the next several years, will enable the School to begin to address such problems in an organized fashion. The School of Music is, however, firmly committed to maintaining a selection of offerings available to non-BMus students.

It is understood that with greater cooperation between departments, broadbased "grass roots" support for interdisciplinary studies in both the Faculty of Arts and Science and the School of Music, and with the Faculty's commitment to "facilitating interdisciplinary activity by reducing traditional barriers to cross-departmental activities," (Faculty Development Plan p.14), new approaches and opportunities for advancement in this area can be created that may not add to the fiscal stress under which the School of Music currently operates.

### 4.1 Preserving a Heritage

Universities must now recognize that in addition to the primary responsibility of dissemination and creation of knowledge, they have a fundamental role in its preservation. Music is thought. Music is knowledge. Masterworks of the western musical tradition are amongst the most enduring, magisterial and challenging manifestations of the human spirit and intellect. In every aspect of teaching and scholarship, the School of Music intends to maintain a keen awareness of the criticality of its role as a place where art is not only cultivated, but where it is honoured and preserved. While all art is value dependent and politically nuanced, its existence as a defining force of human potential and as a record of the historical realization of that potential make it never less than fundamental to the univerity's purposes. The School of Music cannot but be willing to "cultivate a climate of change" and will have to adapt to the anxieties, hopes and regrets attendant to such change. Its fundamental dedication to the preservation of an incalculably precious heritage will not change. This is but a reflection of the fundamental dedication of the university itself. In this connection, it must be recognized that the university's responsibility as preserver and disseminator of culture has become more intensely critical over the past decade. In an environment in which sensitivity to social change is understood to be a

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measure of moral responsibility, the School of Music will understand its cultural preservation function as no less critical, no less morally situated.

### 5.0 Admission

The procedures determining admissibility in Music are unique in the university. Unlike most disciplines, young people with a serious interest in music must demonstrate well developed skills in an audition/interview/testing procedure to qualify for admission in Music. Such skills are acquired through years of training, normally in the context of private study but also in the public schools. Music requires both sure evidence of such skills and a record of academic achievement at or near par with other entering students at Queen's.

### 5.1 Requirements for Admission

Current requirements for admission are based on fair expectations of the product of a vital public and private system of musical training. That system has changed in both spheres. Many families are no longer able to support the cost of instrument purchase and private musical training for youngsters. Many communities have severely cut back music in the public schools. This, together with the overwhelming power of mass media, retrenchment and reconfiguration in the concert industry and subsequent symbolification and commoditization of serious music has brought about fundamental change. It is this situation which suggests that the fair expectations of a decade ago may no longer be realistic.

In acknowledgement of such change, the intention to review and revise admission requirements and procedures as deemed advisable was recorded as an objective in the Planning Document. Over the coming two to four years, the School of Music will:

* Reconsider the conservatory level requirements for incoming students.
* Reconsider the gr. VI piano requirement for all incoming students.
* Reconsider the relation and balance between academic record and audition success in determining admissibility.


### 5.2 Recruitment

Success of undergraduate music units in attracting large numbers of bright applicants, particularly in Ontario, is in significant measure a reflection of the vitality of linkages between the music unit, the secondary school and private
music teachers and their respective professional associations, management and membership of orchestras, choirs and other performance organizations regionally and nationally. Such linkages serve to enable communication between the School of Music and those constituencies with an interest in the musical development of young people. The School of Music recognizes that such relationships must be sought out and carefully nurtured.

Given the severe fiscal and ideological crises in public education of the past decade, high schools no longer function as dependable training grounds for young musicians. Many larger communities in Ontario have concentrated theatre, music, visual arts in "arts programmes," usually organized as modules within a large high school. Other communities, particularly suburban communities, have managed to sustain and, in a few cases, further develop music in the curriculum. Numbers of high school music programmes have been severely cut back or entirely abandoned.

The interest of the School of Music is in broadening the applicant pool such that the percentage of applicants presenting excellent qualifications both musically and academically is expanded. Towards this end the School of Music intends to take the following steps:

* Establish linkages through personal contact with selected Ontario secondary school music departments.
* Encourage attendance of Queen's faculty at meetings of regional/national secondary school music teachers associations. To provide information about Queen's as appropriate.
* Provide secondary schools support through presentation of clinics by Queen's faculty at the high school and by providing workshops for high school ensembles on the Queen's campus.
* Encourage the participation of Queen's faculty as festival and conservatory adjudicators.
* Cultivate linkages with private teachers association such as ORMTA and other "special interest" associations (NATS, Suzuki, Kodaly etc.) and to contribute to the programming of such associations wherever possible.
* Recognize mutuality of interest and encourage cooperation and support with the KSO, Kingston and other youth orchestras, regional choirs and churches, and other ensembles as deemed appropriate.


### 5.3 Enrolment

Enrolment in the School of Music has fluctuated rather unpredictably over the past five years from a low of 143 in 1994/95 to a high of 175 in 1991/92. While there is a flexible margin, an enrolment of from 140 to 155 students with a first-year class of from 38 to 50 plus transfer students is manageable for the School of Music. The number of applicants choosing the School of Music as a first choice has risen $9.9 \%$ in the current year, while the number of out-of-province applicants choosing the School of Music as a first choice has risen more dramatically ( $45.71 \%$ ). Reflecting a general trend throughout the system, the number of transfer applications has risen gradually over the past several years -- a trend that can be expected to continue and that will require some accomodation.

While a sure mechanism for consistently maintaining the ideal enrolment is elusive, the more concrete challenge for the School of Music at this time is to ensure that larger numbers of the best qualified young people know about Queen's, that the School of Music is held in high regard by teachers, guidance counselors and parents, and, perhaps most importantly, that the strengths of the School of Music be sufficient to overide such weaknesses as the poverty of facilities and very thin portfolio of scholarships -- problems that will yield to resolution only through funding. An implicit conflict must be recognized between the resource deficiencies of the School of Music and the seriousness with which it will be considered by excellent applicants who have many options.
> * Faculty is dedicated to enlarging the pool of gifted applicants and to stabilizing enrolment. It recognizes the importance of enhancing the public profile of the School of Music not only through excellence in teaching and research but also by providing key constituencies of interest with support and service.

### 5.4 Changing Demographics and New Opportunities

The demographic makeup of the School of Music population has not changed markedly over the past ten years. Generally speaking, there is a drift in the direction of an increasing proportion of female students and greater numbers of both part-time and mature students. The increase in the number of students who are members of racial minorities, however, is trivial. Diversity in both the student population and faculty is a particularly positive value in a school of music. Such diversity would reflect current Canadian demographic realities as well as enrich the learning experience, musical and intellectual environment of the institution. The School of Music welcomes opportunities presented by greater heterogeneity in the student body and it is hoped that recruitment efforts might be effective in stimulating growth in the
numbers of students from visible and other minority groups in the School of Music.

Music, perhaps more than any other field, has for centuries provided opportunities for training and employment otherwise unavailable to physically disabled individuals. The status of sightless virtuosi going back to Landini in the 14th century is legendary. Harrison-LeCaine, however, is not wheel chair accessible. It is without elevators or ramps, has doors requiring exertion and full physical mobility, a myriad of sharp corners and obstructions.

> * The School of Music strongly endorses appropriate modification to Harrison-LeCaine such that it be made accessible to the physically challenged.

As mentioned in section 3.2, Music tends to hold particular interest for mature students. The School of Music is prepared to advise and enable a course of study that will serve the goals of part-time students taking courses for interest only or who might wish to earn credits toward a degree. While scheduling certain courses in an evening slot, e.g. large ensembles, is very problematical, the School of Music will continue to make an effort to have a reasonable selection of courses available in the evening.

### 6.0 Research and Scholarship

Research and scholarship are fundamental to the life of the School of Music. The research interests of full-time faculty cover a breadth of domains, reflectin, not only a staffing strategy that favors intellectual/artistic diversity in the definition of positions and appointment decisions, but the seriousness of the School of Music's commitment to serve a generality of interests both within the School and the University alike. Principal research interests of the conservatory "face" in the amalgam that is the contemporary university music unit, include performance and performance pedagogy, while the university "face" encompasses historical, theoretical, and critical areas of inquiry. The territory of composition, dependent on a complex of factors, tends to straddle both. What is critical, however, is the identification of the research product of each subdiscipline as equally valid and appropriate to the unit. The outstanding breadth of research interests in the School of Music ideally situates it as a potential contributor to the realization of the Faculty's goal of enriching interdisciplinary offerings over the coming years.

### 6.1 Research and Faculty Balance

While the School of Music has achieved reasonable balance in musicology, composition, and music education in respect of curriculum coverage and research interests, the area of music theory remains both understaffed and, in
consideration of the primacy of the field within musical scholarship, under represented in the School's research profile.

As well, ethnomusicology, a subdiscipline well established if not well represented in the current faculty complement, is very much in ascendency in N. American universities. It is an area of great strategic importance, given its location at the crossroads of social science and music, and its further development clearly holds the potential of broadening the curriculum within the School of Music very much in accordance with current trends as well as strengthening disciplinal networks in a Faculty committed to interdisciplinary study.

While most Canadian universities depend heavily on adjunct staff in applied music, Queen's is unusual in that all applied music staff with the exception of one individual (who normally is assigned teaching responsibilities in other areas as well) are adjunct instructors. Notwithstanding this, Queen's offers comprehensive coverage in keyboard, voice, orchestral instruments, and guitar.

### 6.2 Commitment to Research

Improvement of the artistic and scholarly climate for faculty and students has been identified as a primary goal in the Planning Document of February, 1995. Objectives relevant to research under this goal include the following:

* Active contribution as a scholar and/or creative/recreative musician at the highest possible level.
* Establishment of personal goals in the area of research and publication and the pursuit of an active program leading to the realization of these goals.
* Dissemination of scholarly work in respected journals.


### 6.3 Internal Research Funding

Faculty in the School of Music have established a trajectory leading to the realization of these objectives. It is understood that a readiness to compete with one's peers for external funding is necessary if this trajectory is to be sustained. It must also be understood that the availability of external funding for academics in Music is considerably more limited than it is for scholars in science, social science and, in most cases, the humanities as well. Canada Council programmes often exclude academics, budgets in SSHRC covered subdisciplines of music are extremely limited and such opportunities as may exist for foundation or corporate support are negligible. With so few
alternatives available, it is a situation that makes scholarly work in Music rather more dependent on internal funding than other fields. While this reality begs acknowledgement not only in the sums set aside for fine arts funding in such programmes as ARC and FSAP, it also requires a more inclusive definition of the kinds of endeavours qualifying for funding such that no category of activity understood in departments as equivalent to research (e.g. travel to participate as presenter or adjudicator in festivals and competitions [i.e. not only lectures], travel to attend performances of original work and etc.) is excluded.

### 6.4 New Funding Opportunities

With research funding under extreme stress both internally and externally, it is clear that new sources of research funding must be found. Toward this end, the School of Music has established a Support for the Advancement of Scholarship Fund to receive donations dedicated specifically to this value. Additionally, the School of Music will, over the next five years, pursue the following endeavours:

* A higher public profile for the School of Music as a setting for significant research accomplishment in all areas of Music.
* A vigorous campaign to capitalize the Support for the Advancement of Scholarship Fund.
* Research initiation grants for incoming faculty.
* An effort to "create" additional research time through reduction in responsibilities, particularly amongst younger faculty, wherever possible.
* Encouraging faculty to take advantage of all opportunities for external funding.


### 6.5 Enriching the Scholarly Environment

The School of Music is committed to enriching the scholarly environment for Music in ways that are sustaining for faculty scholars, enriching to students and to the entire university community. Over the past two years, both a School of Music Visiting Lecture Series and Visiting Artists Series have been renewed and funded. In addition, the School of Music will continue to actively participate in the University's Visiting Scholar Programme, in which it has met with consistent success over the past several years. The regular appearance of visiting scholars and artists is a particularly meaningful value in the School of Music and is understood as one effective means in overcoming the deficit of isolation that is, perhaps, more serious a
factor in the life of smaller, more specialized units such as Music. In acknowledgement of the importance of such programmes, the School of Music will make every effort to:

> * Maintain a vital School of Music Visiting Lectures and Visiting Artists Series.

* Regularly utilize opportunities such as the Visiting Scholars Programme.
* Wherever possible, link course focus with lectures, workshops and performances presented by visiting scholars and artists.


### 6.6 Research and Applied Music

As in all music units in Canada employing applied music faculty, performance activities are understood as the equivalent of research. Application of this equation transcends the matter of assessment and career advancement to encompass "foundation values" arising from the recognition that music as a sounding art cannot "exist" without a performing artist whose task it is to translate not only a complex symbological system, but a wealth of culturally encoded meanings and values in converting a musical score to living art. Effective musical performance is only in the most shallow sense an act of physical control and dexterity. As represented in the research output of applied music faculty at Queen's, performance is a synthesis of knowledge, insight, imagination, and physical development. The mutuality of research and teaching is perhaps nowhere more clearly exampled than in the field of applied music. As such, it is important that applied music faculty not only develop a research profile as performers whose accomplishments are widely recognized, but that the research product be presented before a critical mass of colleagues (as would, of course, a journal article or book) and music students, for whom concentrated listening to live performance is a significant component of learning. To enable the development of this critical component of our research profile, the School of Music will present a renewed Faculty Recital Series in the 95/96 academic year. Managed by the Performing Arts Office and supported by the Faculty of Arts and Science and the University, the series will provide a framework for dissemination of the research product, a significant learning opportunity for students, and expand the public interface of the School of Music on behalf of the entire University.

[^3]
### 7.0 Enhancing Diversity

Music is a significant representor of all cultures. Phenomenologically and materially of enormous breadth, the field of music can in itself be understood as an exemplification of diversity. Its study is a finely articulated continuum ranging from mathematics to anthropology, and from physics to aesthetics. While the diversity that arises out of its definition is evident, in Canadian universities it has only recently been reflected in the diversity of learners and teachers. The School of Music recognizes the fundamental value of such diversity as does the Faculty of Arts and Science and subscribes to a policy that will respect and maintain intellectual diversity while enhancing human diversity.

Given all the above, The School of Music affirms the policy objective established in the Plan for Development in the Faculty of Arts and Science (p.9) stating:

* Appointments will be awarded only to exceptionally qualified individuals while recognizing the need for diversity of interests, values, perspectives, experiences and concerns in the academic community.


### 8.0 Applied Music: The Nexus of Understanding and Experience

Section 6.6 of this report speaks to the fundamentality of applied music in the training of musicians independent of specific professional objectives. Few music students, including those of exceptional gifts, are bound for the concert stage. Established career patterns such as the "international virtuoso" have grown beyond past definitions and are quickly being supplanted by other paradigms, both in the academy and the community, that favour breadth of training as well as highly developed musicianship. The value of training in applied music, however, remains both foundational and universal. A firmer, more genuine engagement with theory and history flow from applied music study as does intelligent, stylistic, comprehending playing flow from an understanding of theory and history.

### 8.1 The Public Interface and Applied Music

Public performance, which is fundamental to the research and educative mandate of all university music units, creates a valuable interface between the University and the public. While functioning in one sense as a course requirement or research product, music produced by student and faculty performers and composers also constitutes a powerful mechanism of communication linking the University with the community, alumni, the
regional and national public and, with no exaggeration whatever, an international consituency.

Offering approximately 100 performance-centered events per year to which the public is invited, the School of Music is the major producer of "serious" music in the region. These events include solo recitals, chamber music, vocal and instrumental ensemble concerts, jazz ensemble, a new music series, masterclasses and workshops. Many are advertised in the local print and electronic media and are on occasion reviewed by the local paper. While handicapped because of inadequate facilities at Queen's, CBC Ottawa recorded several concerts between 89 and 92 and one concert in 95 . It is hoped that with improved facilities, it will be possible to expand opportunities for CBC broadcasts in the future. It should also be mentioned that local public broadcasting recorded and televised several Queen's musical events during the past year, though the future for such outlets is at present beclouded by changes to copyright currently being examined.

Faculty composers at Queen's have established national and international profiles. Their works are commissioned and performed by artists of first rank across Canada, the U.S., Europe, and Asia. Heard regularly on CBC and other venues, and with some works available on recording including two CDs produced at Queen's (three currently in production), the creative output of faculty composers has been a significant factor in securing the international visibility now enjoyed by Canadian music. Performers associated with Queen's maintain vigorous careers as solo, orchestral and chamber musicians and are heard in concert venues throughout Canada and internationally. The University's public interface has also been greatly enriched by local, national and international performances by student ensembles.

What this means for Queen's is that the public interface of the School of Music not only reaches an extensive public with an offering of art, but represents the University as an institution. It is representation of value and authenticity that cannot be produced by Public Relations or Advancement. It not only accesses an international constituency but also provides a sampling of the accomplishment of faculty and students at Queen's. As such, the public interface of the School of Music is functionally linked to development efforts that are so critical for the future of the University.

Affirming the performance mandate of the School of Music and in acknowledgement of the unique value of its public interface, the School of Music will:

[^4]* Encourage faculty performance through the Faculty Recital

Series and other venues.

* Encourage faculty performance through national and international venues.
* Seek out opportunities for recording and broadcast of Queen's performances
* Cultivate positive relations with print and electronic media, constituencies of interest nationally and internationally.


### 9.0 Physical Resources: The Tools for Instruction and Artistic Accomplishment.

Like great professional faculties, schools/faculties of music flourish in great universities -- i.e. where there is knowledge of what each discipline contributes in creating an institution of distinction. It is not a matter of breadth of distinction, but only of distinction. There are few if any great universities in N . America that do not include a great music department. There must as well be knowledge of how to create such distinction. Such knowledge is rarely arcane, but its demonstration represents the university's commitment to generality of excellence through the specificity of its support to the disciplines.

The point has been made that the provenance of music in the university lies at the heart of the humanities. Unlike the humanities, however, pedagogy and practice in most areas of science and music is defined more narrowly by the nature of the discipline and, given the capital intensivity that flows from this fact, the funding model for science would appear to be most appropriate for music. Capital intensivity is a given. If excellence is to be a serious goal, its avoidance is not an option. If music students are to be prepared to function competently in an increasingly competitive and technologically based environment, there can be no question but that the resource base necessary for their learning is a fundamental requirement.

That the School of Music is "resource-poor" is not a polemical weapon but a concrete and immediately evident fact. Comparison with the resources of music units in Ontario universities with which Queen's competes for the best students will confirm this. A glance at the Physical Resources section of the Canadian University Music Society Guidelines (1995) will reveal the significant distance between the standard recommended for member institutions and the physical resources currently available at Queen's.

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It is in acknowledgement of this situation that the following was identified in the Planning Document as an objective supporting the goal of an improved artistic and scholarly climate.

* (The Director will) continue to actively represent the physical resource needs of the School of Music.

This must be understood as a significant priority for students, faculty, and the administration of the School of Music. Given the fact that, unlike the sciences, music does not have access to external granting agencies that might provide major resource funding in the context of faculty research programs, the School of Music is largely dependent on the University's understanding of the legitimate resource needs of the School of Music and its commitment to accepting the unique challenge it presents.
> *The School of Music accepts, however, that "normal" channels of university funding are increasingly insecure and unpredictable and is committed to independent fund raising effort in cooperation with the Offices of Advancement and Alumni. Indeed, these efforts are well under way and will expand and intensify over the next five years.

### 10.0 Creating an Environment for Accomplishment

With severe cuts in government transfer payments, the pressures of demanding teaching and administrative loads and the institution's expectation of performance in research and publication, university environments are increasingly stressful. Inadequacy of physical resources and the additional effort and time exacted of faculty in overcoming deficits specific to the School of Music are not without cost. Faculty in the School of Music are not prepared to accept such costs without effective and creative response. It was just such a response that motivated the adoption of the following statements in the Planning Document as primary goals over the next five years:
> * To work together efficiently in a climate of goodwill and cooperation: It is recommended to approach situations from a psychological basis that stresses positive thinking, the necessity of compromise, movement toward agreement, and the avoidance of territoriality and personal agendae.

[^5]
### 10.1 Administrative Structure and the Protection of Faculty Time

Administrative structure and procedure in the School of Music require a great deal of faculty input. Students are admitted on the basis of audition and interview as well as academic record. The admission process requires the involvement of all full-time faculty as well as four months of staff time in coordination and planning of what is necessarily a very complex procedure. In addition to serving on a host of standing and ad hoc committees as stipulated in the School of Music Constitution, full-time faculty are responsible for coordination of all performance and academic "areas" and are, along with members of adjunct faculty, much involved in post-term jury and recital grading. Given the complexity of applied music, keyboard, and ensemble requirements, the large number of non-music majors requiring information, auditions and etc., academic advising in Music tends to be especially time consuming.

While the vital importance of faculty administrative responsibilities cannot be questioned, there is well justified concern with the efficiency and effectiveness of structures and policies within which such responsibilities are carried out. As well, there is concern that current administrative structures/procedures may not be optimally configured for effective response to changing circumstances within the University. These realities along with the likelihood that re-examination of curriculum and programmes now underway may yield useful ideas re. administrative restructuring, suggest the advisability of reviewing the administrative operations in tandem with the curriculum/programme review. The goal of such a review, as identified in the Planning Document of February, 1995, is to ...

* Create administrative structure enabling response to changing circumstance.

Supporting objectives include the following:

* Establish priorities among administrative tasks to be completed outside teaching/research/ creativity, assuring that faculty time/energy is protected.
* Establish network of consultation.
* Schedule open meetings for discussion.
* Ensure equity and representation from all stakeholders.
* Ensure flexibility, including contingency plans in all areas.


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### 11.0 Continuing Professional Development for Members of Staff

The Survey in Higher Education in Canada (1993) undertaken by Dr. James Code (Mt. Allison) on behalf of the Canadian University Music Society reports that in schools with a mininmum student population of 150 (Queen's normally straddles this figure but is more often above than below), "there are a minimum of two secretaries, one administrative assistant, and two technicians/managers of other sorts. One of the 'medium sized' schools (75149) reports seven staff." The School of Music at Queen's employs two secretaries, one administrative assistant, and, as of 1993, one technician/manager. The major distinction in non-academic staff complement at Queen's and other Canadian schools of like size is the absence of a full-time, salaried piano technician -- a clearly negative factor in respect of both student learning and budgetary stress/management complications.

Non-academic members of staff are assigned a wide range of tasks requiring budget management and communications skills, advanced computer literacy, coordination and scheduling, and extensive contact with students, faculty, and the public. The position of technician/instruments manager requires advanced skill in audio/visual aids, computing, and inventory management.

The School of Music actively encourages and, wherever possible, supports the costs of enrolment in workshops and other opportunities to update technical, management, and personal skills of staff members. The importance of such a policy is identified in the Planning Document as an objective supporting the goal of goodwill and cooperation within the School. It targets both nonacademic staff and faculty.

* It is advocated that members of faculty and staff at the School of Music enrol in a minimum of one workshop training session during the 95/96 acadmic year, and a further workshop during 96/97.


### 11.1 Ensuring Efficiency

Given the range of responsibility and continuous intensity in the work schedule for members of non-academic staff, efficiency of staff operations is a primary value.

[^6]
### 12.0 Music Education

The School of Music at Queen's has long been identified with progressive trends in music education. With more than half of our graduates applying to faculties of education for professional certification, public education is clearly an important career goal for students in the BMus programme. The School of Music's Curriculum Development Proposal provides a plan for renewal/updating of music education such that it is fully congruent with developing trends in the discipline and in a rapidly changing industry. The proposal priorizes interdisciplinarity as a significant value in both the professional and intellectual preparation of the music educator. In this, it parallels an emerging value within the School of Music and the Faculty of Arts and Science.

### 12.1 Concurrent Education

It is recognized that concurrent education is the preferred model for music education in many of the most successful programmes in Canada and the U.S. In view of the advantages concurrent education presents in the integration of artistic development, intellectual growth, and professional training with minimum compromise, its implementation at Queen's represents a significant opportunity to students, faculty, and the industry.

* In view of the positive response of the Faculty of Education to preliminary enquiries re. concurrent programmes in music, the School of Music, with the support of the Faculty of Education and the Faculty of Arts and Science will explore possibilities for developing concurrent education programmes in the context of both a BAH (music education medial and major) and a suitably reconfigured BMus. This effort will be undertaken within the framework of the School of Music Curriculum Development Proposal.


### 13.0 Graduate Programme

Queen's understands itself to be a "research intensive" university. As such, graduate programmes and the research endeavours that are fundamental to them are linked to faculty research expertise creating a framework and positive environment for pursuing the University's research mission. The School of Music, likewise, understands itself to be "research intensive." Its research contribution enables and confirms the legitimacy with which the University can claim to be "research intensive." The absence of a graduate programme in Music is at least anomolous and, in the eyes of some, negative. Over the years, the School of Music has produced three proposals for a graduate programme. The most recent, a proposal for an MMus in Composition, submitted in 1994, cannot proceed without additional funding.

In view of the established research profile and maturity of the School of Music and the precedence of the University's research mission, a modest graduate programme in Music would seem both a reasonable expectation and, from the University's perspective, a positive development. With the anticipated development of new programme configurations within the School of Music, and with the potential for new opportunities created by interdisciplinary studies in which Music might share, graduate studies in Music will continue to be a goal for the not-distant future.

### 14.0 Advancement

The absolute requirement that efforts be initiated within departments and schools to develop programmes of external support is well understood within the School of Music. That effort has been ongoing since 1993 and has resulted in the establishment of bequests and scholarships. As well, three funds have been established that comprehensively cover areas of need within the School of Music. They include the following:

> Fund for the Advancement of Scholarship Performance Fund Equipment Fund

Each of the above has been modestly capitalized through the contributions of individuals, funds, and corporations. It is the intention of the School of Music to work closely with the Office of Alumni Affairs, The Offices of Advancement, Development, and Public Relations, in the strategizing of an effective campaign to develop external funding support.

Faculty in the School of Music have recognized the importance of these efforts and endorsed them as objectives in the Planning Document. The School of Music will continue its efforts to . . .

* Actively represent physical resource needs of the School of Music (see 9.0).
* Seek improved scholarship opportunities for students attending the School of Music.
* Seek out funds to stimulate and enable faculty research programmes (see 6.4).


### 15.0 Conclusion

The process of discussion leading to this report has taken place over three years. Challenging and intense as it has been, it is a dialogue that has created a heuristic framework for imagining, testing, and articulating varying and conflicting visions of the School of Music. While academic departments are rarely the sites of limpid harmony, it is clear that this discussion has initiated a process of consolidation that holds promise for continued progress in charting the course of the School of Music.

The realization that the forms that sustained stability in the past must be critically re-examined is firmly established in the School of Music. The exercise of discussion and debate leading to and beyond this Report makes it powerfully clear that a template can be forged that will replace uncertainty with realizable, thoughtfully engendered potential. With this Report, that potential can now be imagined with greater clarity and focus. It can be understood to include a broad range of goals, values, and issues, the realization/resolution of which will in significant measure sustain the future strength of the School of Music.

FACULTY: FULL TIME

DR. KRISTI ALLIK: Composer, teacher of composition, theory, jazz studies; Area Coordinator for Theory/Composition; Director of Computer Lab for Applications in Music, Associate Director, Queen's Electro-acoustic Music Studios; works commissioned and performed in Canada and abroad, articles.

DR. DUANE BATES: Music educator, conductor, teacher of music education methods and philosophy, conducting; Area Coordinator for Music Education, Area Coordinator for Brass \& Percussion; conductor Queen's Orchestra, has conducted Wind Ensemble, Symphonic Band, Jazz Ensemble; research interests in evaluation, curriculum studies, 20th cent. music in the classroom; adjudicator, clinician, conference participation and guest lecturer.

DR. JOHN BURGE: Composer, pianist, teacher of composition, theory; Area Coordinator for Strings; composer of works for traditional media with particular interest in music for choir; commissions and performances in Canada and abroad, adjudication, conference participation and lectures in Canada and USA.

DR. ALFRED FISHER: Composer, teacher of composition, theory; Director, School of Music; composer of works for traditional media; commissions and performances in Canada and abroad, articles and reviews, conference papers, research interests in culture criticism, aesthetics, theory, Native culture.

DR. KAREN FREDERICKSON: Music educator, vocalist, conductor; conductor of Queen's Chamber Choir; research interests in arts education, performance ability, encoding and spatial ability, physiology and performance; adjudicator and clinician, conference participation and lectures in Canada and USA.

DAVID KEANE: Composer, teacher of composition and music theory; Founder and Director, Queen's Electro-Acoustic Music Studios; research interests in aesthetics, music technology; commissions and performances in Canada and abroad, publications in aesthetics of electro-acoustic music and music cognition, conference papers, lectures in N. America and abroad.

DR. ROBERTA LAMB: Music educator; teacher of music education, courses in Women's Studies; research interests in gender issuses \& feminist studies in music education, mentor/apprentice pedagogy, philosophy of music education; published articles and reviews, conference papers nationally and internationally, guest lecturer.

DR. OLGA MALYSHKO: Musicologist, pianist; teacher of musicology, conductor of Queen's Collegium Musicum; research interests in medieval and Renaissance music with particular interests in English conductus repertory; published reviews and articles, conference papers in Canada and abroad.

DR. BRENDA RAVENSCROFT: Music theorist; teacher of music theory; research interests in theory of rhythm, text/music relationships; conference papers and completed articles out for consideration (appointed 94).

DR. RUDI SCHNITZLER: Musicologist, teacher of musicology; Chair of Undergraduate Studies and Area Coordinator for Musicology; research interests in 17th and 18th century music, opera, focus on 17th cent. Viennese oratorio; published reviews and articles, conference papers and lectures in Canada and abroad, formerly active as choral conductor.

DR. GORDON SMITH: Musicologist, ethnomusicologist, teacher of musicology, ethnomusicology, popular music; Area Coordinator for Voice; research interests in cultural transmission, Quebec folk music, music of Eskasoni Micmacs; published reviews and articles, conference papers.

DR. IRENEUS ZUK: Pianist, teacher of piano and basic musicianship; Area Coordinator for Piano; active concert pianist, solo artist, Zuk Duo, soloist with orchestra, member of Windsong Chamber Ensemble, broadcasts, recordings, commissioner of new Canadian works, international adjudication; research interest in the piano concertos of Canadian composers.

## ADIUNCT FACULTY:

PETER ALLEN: Music educator, conductor; teacher of music education methods courses, choir conductor.

WILLIAM BEAUVAIS: Guitarist, teacher of guitar; concert artist, commissioner of new Canadian works, composer.
DAVID CAMERON: Organist, choral conductor, teacher of organ; active conductor and performer, teacher of music theory; Director of Music, Chalmers United Church.

GORDON CRAIG: Clarinettist, conductor, teacher of clarinet, conductor of Queen's Symphonic Band and Wind Ensemble, conductor of Queen's Clarinet Choir; First Chair clarinet, Kingston Symphony, conductor, Quinte Symphony, active concert artist and chamber musician.

TOM DAVIDSON: Pianist, collaborative artist, teacher of piano, basic musicianship; teacher of piano and basic musicianship at McGill Univ. \& McGill Conservatory; active as pianist, collaborative artist.

PETER FREEMAN: Saxophonist, teacher of saxophone and chamber music coach; teacher of saxophone at McGill Univ., and McGill Conservatory, performs with various ensembles in Montreal incl. Montreal Symphony, formerly with Danovitch Quartet

ALLISON GAGNON: Pianist, collaborative artist; teacher of piano, basic musicianship; active as collaborative artist and chamber musician, member of Martlett Trio, staff accompanist, McGill Univ., research interests in psychology of musical perception, chamber music of Brahms.

JOHN GEGGIE: Double Bass, teacher of double bass; active with NAC Symphony, jazz, pop, recording artist.
DONELDA GARTSHORE: Flautist, teacher of flute, conductor of Queen's Flute Choir, Area Coordinator for Woodwinds; First Chair flute, Kingston Symphony, soloist, member of Windsong Chamber Orchestra, soloist with orchestra, performances and broadcasts throughout Canada.

BRUCE KELLY: Vocalist, teacher of singing; active recitalist, soloist with orchestra, active in oratorio and opera in N. America and Europe.

SUZANNE KOMPASS: Vocalist, teacher of singing, active recitalist, soloist with orchestra and in oratorio, active as teacher of voice in Toronto

EWELINA KWASNIEWSKA: Vocalist, teacher of singing and secondary voice class; active as singer in oratorio \& solo work.

WILLIAM MADDOX: Organist and choir master, teacher of organ: recitalist in Canada and US, CBC broadcasts, church musician.

MARGARET MCLELLAN: Pianist, collaborative artist, vocal coach, chamber music coach, teacher of piano, keyboard harmony, adjudicator, formerly active as choral conductor (ret. full-time, 93); interests in music therapy.

MARJAN MOZETICH: Composer, teacher of composition; commissions and significant performances in Canada and abroad.

DINA NAMER: Pianist, collaborative artist, teacher of piano; active as soloist, collaborative artist and chamber musician; performances and broadcasts in Canada and USA.

ROBERT OADES: Trumpet, teacher of trumpet, chamber music coach; active as performer in orchestral (NAC) and chamber music.

KENNETH PERKINS: Violinist, teacher of violin, viola, chamber music coach, conductor Queen's Chamber Orchestra; formerly section member, Montreal Symphony, member, Orford Quartet; international adjudication

MUTHULAKSHMI RANGANATHAN: Veena, teacher of veena, ethnomusicology; performs and broadcasts internationally.

CAROL-LYNN REIFEL: Vocalist, teacher of voice, chamber coach; active as soloist and as soloist with orchestra, oratorio; adjudication.

JUNE RICHARDS: Pianist, collaborative artist, teacher of piano; formerly accompanist with Banff Centre, active teaching practice in Kingston; adjudication.

GREG RUNIONS: Percussionist, principle Percussionist, Kingston Symphony, teacher of percussion, conductor of Queen's Jazz Ensemble, jazz studies; active performer with KSO, Greg Runions Quartet and with other jazz ensembles in the region, adjudication.

NORMAN SHERMAN: Composer, teacher of composition, bassoon; orchestral and chamber musician; commissions and performances Canada and abroad.

MARK SIRETT: Choral conductor, organist, pianist, collaborative artist; conductor of Queen's Choral Ensemble; active performing musician as conductor, organist and pianist; Director of Music for St. George's Cathedral.

MICHEL SZCZESNIAK: Pianist, collaborative artist; teacher of piano; pianist for KSO, active concertizer, soloist with orchestra, chamber music.

CYNTHIA TORMANN: Pianist, collaborative artist, teacher of piano, basic musicianship; active as soloist and collaborative artist.

WOLF TORMANN: 'Cellist, orchestral and chamber musician, teacher of 'cello; First Chair 'cello, KSO, active in orchestral and solo playing in N. America and abroad.

COLLIN TRAQUAIR: Trombonist, teacher of trombone, euphonium, tuba; active orchestral musician with National Arts Centre Orchestra and as teacher in Ottawa area.

FRANCOIS TROTTIER: French Horn, teacher of french horn, chamber coach; active orchestral and chamber musician in Ottawa.

JENNIFER WEEKS: Oboist, teacher of oboe; First Chair Oboe with KSO, active orchestral and chamber musician.

## PROPOSED 〕ADER EXHIBITION

New Gallery, 27 Sept'96-13 April'97
NEW GALLERY: 163 running feet in circumference. An exhibition planned for this space should contain approximately 98 running feet of paintings (using width measurement of each painting, unframed.) The rest of the space will be amply filled with frame, label and panel text and 'breathing space'.

SHIPMENT OF ARTWORKS: to soft-wrap, and deliver thirty paintings from Milwaukee is estimated at $\$ 5309.60$ (USD) plus $\$ 280$ (Cdn D.). Return trip would be the same.

CATALOGUE:
Editor:
Photography:
Design:
Printing:
Binding:
ESTIMATED SCHEDULE:
Catalogue Text to be received by June 1996. All photographs received by June 1996.
Editing/Design complete: 1 September 1996 Catalogue published by: 27 October 1996. Plan of exhibition to be received by June 1996.

Publicity materials to be received by 1 August 1996.
Label and panel texts to be received by 1 September 1996. Delivery of works to Art Centre: 15 October 1996.

Symposium, November 1996.
Paintings to be returned to Milwaukee, late April 1997.

## FAX FROM

DR. ALFRED BADER

Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone: 414/277-0730
Fax: 414/277-0709

September 1, 1995
Page 1 of 3
To: Mrs. Cathy Perkins
Principal's Office
Queen's University

## Dear Cathy:

Thank you so much for your long fax, much appreciated. We sure look forward to seeing you in October and being able to thank you personally.

Enclosed please find the sad letter we received from Monique Nicholson after John had died.
Would you consider working with her and writing a book review for The Ottawa Citizen?
Fond regards, as always,


AB/cw
Enclosures

To.

$$
\begin{aligned}
& \text { Alfred GADER Fine Arts } \\
& F A X=414277-0709
\end{aligned}
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PERSONA-L
PLEASE FORWARI
Dear Atfred and Trabel Bader,
Your latter of the GitMayla9
addretfed to Toln was almest loxt in the flow
I of letters and mextages that hove arrived her

- of sinee he died on 1 huy 1995.

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Io Tohn's qeovew of the dutobigfaphy on his computer Howeser I have frun of fevelde had - witten prite by Yohn about you book. Would you like We to send them to for in diy calte?
in mode it postible for us to than on you for havinot mode it postible for un the toy in onif cat did priaces at the cat the diling the firut fomerter of the 7 s 5 星 Hohn felt privila fod to teaceh there and I shared $h$ enthution for 9 veon's abrood on fuphee. Tohn wos born on what is now Eaxt Russex (nat too parf fron Herimoneemp) and lookong at-it now in a trat peective If thonk it if fitong that the sai Surney-by - the floce in his dast yedr.

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Thdrking you agown and inishing you all the beol
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Dr. Alfred R. Bader
2961 North Shepard Avenue
Milwaukee, Wisconsin 53211

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what eau ene pay, phlu fou to quote yobs,' The hord has orven and ite lord has taber avay'. Obsiamey. John wan puck a kind, comperener and groductive man, and life nust be Jeng lovely for yor. As you tay, work is ke great aulidote, and you have many Hiends at ke catte. We lapk famana to pecing you fore is November.

Mené worry abous $k e$ se Viemon for Ker $^{\prime}$ OHama Citizen ama $k$ Clobe and Mie. If you coned connbine- \&ope of Jolves cammonts you ease fua, wit jour owor and lher pend Fem to ke editors, Har woned be grear, buk it is not important.

We are retuining to Nilwanker wexe Hiday and will be at Ducesis in October $K$ is Rethill in Noveuber. Beft wirkes Goone isohal \& we Qus. - $x$

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DEPARTMENT OF DEVELOPMENT

Queen's University
Kingston, Canada
K7L 3 N6
Tel $613545-2060$
Fa\ 613 545-0599

September 7, 1995

Dr. Alfred R. Bader<br>2961 N. Shepard Avenue<br>Milwaukee, WI 53211

Dear Dr. Bader:
I would like to take this opportunity to introduce myself to you as the new Director of Development at Queen's University. As you may already know, John Heney retired from this position on August 1st, having served the institution with great distinction in recent years.

I am looking forward to meeting you personally in the weeks ahead, and to providing whatever assistance you might require from the Advancement office.

It is also a pleasure to express my sincere thanks for your recent gift of \$55,348. (\$40,000.US), given in support of the Agnes Etherington Art Centre. An official charitable receipt is enclosed for your records.

Your interest in the work of the University is, as always, very much appreciated by the entire Queen's community, and I am grateful that you have again chosen to demonstrate your commitment in such a meaningful way.

Thank you again for your continued interest and support of Queen's. I look forward to meeting you when you are here to celebrate the 50th Anniversary of your graduation class.


IMF/sw
Enclosure


OFFICE OF THE PRINCIPAL
Queen's University
Kingston, Canada
K7L 3N6
Tel $613545-2200$
Fax 6I. $3 \quad 545-6838$

## FAX TRANSMISSION

DATE:
Tuesday, 12 September 1995

| TO: | Dr. Alfred Bader Astor Hotel Suite 622 924 East Juneau Avenue Milwaukee, WI |
| :---: | :---: |
| FROM: | Joyce M. Zakos <br> Assistant to the Principal |

## Alfred,

Professor Reena Zeidman, holder of the Chair in Jewish Studies, has asked for a meeting with you when you are here at Queen's in October. Your schedule is filling rapidly but we could work it in if you wish. Reena has indicated that a half hour would be fine. She just wants to meet you and have a chat.

I have attached the latest version of your schedule. Perhaps you could call me (613-545-2200) and we could talk about it and at the same time discuss anything else about your visit that is still in question.

Best wishes,

$\qquad$

| Revised: September 11, 1995 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| BADER VISIT October 18-27, 1995 |  |  |  |  |
| DATE | TIME | EVENT | PLACE | NOTES |
| Wed. Oct. 18 | a.m. | Asrive Toronto | Chelsea Inn |  |
|  | p.u. | Available for Toronto meetings | Torunto | Contact: Florence Campbell |
| Thurs. Oct. 19 | all day | Available for Toronto meetings | Torento | Contact: Florence Campledl |
|  | 9:C0 p-m. | Interview with Pantela Wallin | CBC Toronto |  |
| Fri. Oct. 20 | ~12:00 noon | Arrive Holiday Inn | Holiday Inn (Room xeserved by Alumni Otfice) | Oct 20-22 <br> Alumnú weekend highlights only. See detail on Alumni listing. |
|  | 1:00. 4:00 p.m. | Class of '45 Registration and Tea | Holiday Inn |  |
|  | 6.00 p.m. for $7.00 \mathrm{p} . \mathrm{m}$. | Sci "45 Reception and Class Dinner (Class photo before dinuer) | Hotiday Ina |  |
|  | 8:30 p.m. | Principal's Ceilidh | Grant Hall |  |
| Sat. Oct. 21 | 1:00 p.ro. | Fuotball game (Ottawa @ Queen's) | Richardson Stadium West Campus |  |
|  | 6:00 p.m. for 7:00 p.m. | Principal's Dinner | Wallace Hall, IDUC |  |
| Sun. Oct. 22 | 10:30 or 11:00 a.m. | Brunch | University Club | Tentative |
|  | 12:00 noon- 2:00 p.m. | Brok signing | Agnes Etherington Axt Centre | stafi to be assigned, travel Mation Dick to arrive Summerhils |
|  | Approw. 3:00 p.m. | Move from Hokiday Inn to Summeribill |  | travel to be arranged |
|  | 6:00 p.m. | Ditmer with David \& Arndale McTavish and Axt Mistorians | McTavish tome | 78 Gore Street |
| Mon. Oct. 23 | 10:00 am. | Interview with Boris Castel, Queen's Quarterly | IBA |  |
|  | 12:00 p.m. | Meet with Hillel members over lunch | Hillel Honse 124 Centre St | Contact: Dana Booknan Phone: 531-4399 |
|  | 2:00 p.m. | Bill Leggett (followed by visit to ISC offices?) | Summerhill or office |  |
|  | 5:30 p.m. $6000 \mathrm{p} . \mathrm{m}$. | Leggetts to host dinner | Sunonerhill | guest lists? |
|  | 8:00 p.m. | Aut Mistory lecture "The Detective's Fye" | Etherington Hall | Contact: David McTavish |


| BADER VISIT October 18-27, 1995 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Tues. Oct. 24 | 10:00 a.m. | Informal meeting with Advancement stail | Smmmerhilll West |  |
|  | 11:00 am. | Meet with Makoom Peat, then lunch if time permits | Luisalle Bujlding 2nd Floor |  |
|  | HOLD: 12:00-2:00 p.m. | or luch with che Smiths |  |  |
|  | 2:30-4:00 p.m. | Lecture - School of Business History of Sigma-Aldrich | Dunning Auditorium (to be confinned) | Contact: Bruce Buchan |
|  | 4:00-5:00 p.m. | Reception w/Business faculty, and students | Durniug Lounge |  |
|  | 6:30 pm. | Florence Campbell dinher | 20 Gore Street Suite 401 |  |
| Wed. Oct. 25 | 10:30 a.m. | Meet with Stan Brown, Head, Department of Chemistry | Frost Wing F409 | Armeria Natansohsi contact |
|  | 11:30 a.m. | Chemistry Seminar, "Archibald Scott Couper and Josef Loschonidt: Out of the Shadow" | Frost Wing FG-15 |  |
|  | 12:30 p.m. | Lunch with Chemistry department students and others | Frost Wing Lounge F411 |  |
|  | HOI.D: $2: 00 \cdot 4: 00 \mathrm{p} . \mathrm{m}$. | Meet with Smiths |  |  |
|  | 4:00-5:00 p.m. | Reception for past and prospective ISC students | Summerhill? |  |
|  | Approx. 600 p m. | Dinner, Chemistry faculty | Stan Brown's home | 253 Willingdon Avernu |
| Thurs. Oct. 26 | am. | Depart Summerhill for Ottawa |  |  |
|  | P.124. | Available for Ottava meetiags | Otawa | Contact: Ftorence Canuphell |
| Fri. Oct. 27 | All day | Available inc Outawa meetings | Ottana | Contact: Florence Camplell |

Queen's University
Kingston, Canada
K7L 3No
September 26, 1995

Dr. and Mrs. Alfred Bader
2961 North Shepard Avenue
Milwaukee, Wisconsin 53211

Dear Alfred and Isabel,

I have been informed by the Principal's Office that you are free for lunch on Tuesday, October 24. Mary and I have thus invited you to join us for lunch at the University Club from 12 noon to 2 p.m. I understand Marion will be in Kingston too, and we hope she will come along as well. Since I do not have her address handy, would you please extend the invitation to her. We will all meet at the entrance to the Club at noon. (Until recently, it was called the Faculty Club.)

It is always a great pleasure to get together with you and to get caught up on personal news. What a special year it is too on the occasion of your 50th, Alfred.

With our best wishes to you,


# Dr. Alfred Bader <br> 2961 North Shepard Avenue <br> Milwaukee, Wisconsin 53211 <br> A Chemist Helping Chemists 

September 26, 1995

Mr. Ian M. Fraser, FAHP<br>Director of Development<br>Queen's University<br>Kingston, Ontario K7L 3N6<br>Canada

## Dear Mr. Fraser:

Thank you for your kind letter of September 7th.
I look forward to meeting you. I am sure that you know that you don't have an easy task following John Heney's footsteps.

Recently, I gave a gift of U.S. $\$ 2,000$ to help a function at Herstmonceux Castle a copy of both sides of my check. Could you please send me an acknowledgement, which I require for tax purposes? Thank you for your help.

Sincerely yours,

AB/cw
Enclosures

DEPARTMENT OF DEVELOPMENT
Queen's University
Kingston, Canada
K7L 3N6
Tel 613 545-2060
Fax 613 545-6599

September 7, 1995

Dr. Alfred R. Bader<br>2961 N. Shepard Avenue<br>Milwaukee, WI 53211

## Dear Dr. Bader:

I would like to take this opportunity to introduce myself to you as the new Director of Development at Queen's University. As you may already know, John Heney retired from this position on August 1 st, having served the institution with great distinction in recent years.

I am looking forward to meeting you personally in the weeks ahead, and to providing whatever assistance you might require from the Advancement office.

It is also a pleasure to express my sincere thanks for your recent gift of \$55,348. (\$40,000.US), given in support of the Agnes Etherington Art Centre. An official charitable receipt is enclosed for your records.

Your interest in the work of the University is, as always, very much appreciated by the entire Queen's community, and I am grateful that you have again chosen to demonstrate your commitment in such a meaningful way.

Thank you again for your continued interest and support of Queen's. I look forward to meeting you when you are here to celebrate the 50th Anniversary of your graduation class.


IMF/sw
Enclosure

## ALFRED BADER FINE ARTS

September 27, 1995

Professor Bruce Laughton<br>Department of Art History<br>Queen's University<br>Kingston, Ontario K7L 3N6<br>Canada

Dear Bruce:

I very much enjoyed reading your fascinating account of the visit to St. Petersburg.
You know more about turn-of-the-century European paintings than anyone else I know, and I am wondering whether you could help me with suggestions about the authorship of two paintings of which I enclose black-and-white photographs and snapshots.

The moonlight scene is certainly 20 th century and has a non-floating signature, G.R. Of course, the artist who comes to mind is George Rouault, but that may just be wishful thinking.

The study of a cocky-looking boy comes from a gallery in Berlin, sold between the Wars, and I suspect that it is central European of around 1920. Unfortunately, it is not signed.

Isabel and I much look forward to being at Queen's for my 50th reunion at the end of October and perhaps we could chat about these paintings then. They are sufficiently small and stable that if one or the other - or even both - interest you particularly, I could of course bring them along.

With all good wishes, I remain,
Yours sincerely,
$\mathrm{AB} / \mathrm{cw}$

Enclosures

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\text { By Appointment Only } \\
\text { ASTOR HOTII SIITE G22 } \\
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\text { TEL } 414277-0730 \text { FAX } 414277-0700
\end{gathered}
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# ALFRED BADER FINEARTS 

September 27, 1995

Ms. Thaba Niedzwiecki
\#206 Angus
Queen's University
Kingston, Ontario K71 4H7

Dear Ms. Niedzwiecki:
Thank you for your fascinating letter of September 18 th.
Isabel and I look forward to being at Queen's for my 50th reunion from the 20th to the 26th of October, and it would give us great pleasure if we could meet personally, perhaps best before or after my lecture at the Art Centre.

With all good wishes, I remain,
Yours sincerely,
$\mathrm{AB} / \mathrm{cw}$

> By Appointment Only
> ASTOR HOTELSUITE 622
> g24EAST JUNEAUAVENUE
> MILWAUKEE WISCONSINUSA 5.3202
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ALUMNI ASSOCIATION

「o: Or Altrod Eant

From: luanka franikove
Eranch Develomment Coordmato
Lieuslrnent of Alls.
Queer. s Lriversity

K/L $3 \mathrm{Nr}_{\mathrm{Z}}$
Phone ( 613 ) 545-205! $\operatorname{lax}$ 1613:54.

Date: October 6 1yys
Number of Pages: (Including this n'

Dear Alfred

Happy I hanksgiving from Lanada! It s diticult to pelleve that ar entire summer has passed since you spoke to our Guelph and KitchenerfNaterloo branches in May I hore you and Isabel spent an enjoyabie summer in vour many travels

I wanted to let you know how popular your presentations were with out alumni and to thank you once again for your interest in speaking to our alumni branches The attendance for your lecture in Guelph was the largest ever in the iont efforts of the twe Drancnes, even surpassing tre very popudi Itanic lecture by annther Queen's aiumnus

Further to our conversation in Guelph I wou'd like to sav once auain how nleased I would be to organize other lectures ror you witr our alumnitranches accirdina to vi .. interest and avaiablity If I recali correctlv, you ingicated then that vou would he willinn to speak to aiumni branches whose locator onmicides with vour conference schedult this coming year. If you are still interested r: going so and if vou would let me know what your avallability is I would make the aoprocrate arrancements

I belleve that you also mentroned that you aidd laatel might be in rotawa at the beginning of Noverı. er of this year On Wednesday. November 1 the Ottawa seniors group will be holding a Iunche . at the Royal Ottaw Golf Club. The aliest soeaker will be the Honourable John Matheson, Arts'40. LLD'84 who will smeak on the thnic of "Canada in the 21st Century". If you and Isabel wit de in Ottawa on this dav and if you are free, I would like to invite you both un behalf of the Bramch Development Unit of the

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Department of Alumni Affairs，to be our guests s：shis iumcheon it woric give vou an opportunity to meet some of our Utawa aumm or a ven into：mal basis and nermans we might be able to arrange a time to vou tc cive one of vour intorm？ative and
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Again，many thanks for your ettorts ar！d ！nieres：I look ionwary to hradma rac．．．yr． soon and io seeing both vou and isabel on Alsmin Vveekenc

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Ivankafrafikcu．
Branch Developmeril Coordrieios

## FAX FROM

DR. ALFRED R. BADER
Suite 622
924 East Juneau Avenue
Milwaukee, Wisconsin 53202
Telephone 414-277-0730
Fax No. 414-277-0709

October 9, 1995
To: Ms. Ivanka Franjkovic
Branch Development Coordinator
Department of Alumni Affairs
Queen's University
Fax: (613) 545-6777

Dear Ivanka:
Thank you for your thoughtful fax of October 6th.
Unfortunately, we can't accept your kind invitation for lunch on November 1st because Isabel and I plan to be in Ottawa only from the 26th to the 29 th of October.

But next year, we will probably be in Ottawa again at around the same time, and if you would like to plan for a talk to the alumni then, perhaps even with a book-signing, that would be just fine.

On this trip, we are coming to Toronto on October 18th and then have a meeting with an Ontario Minister at $4: 30$ on the 19 th and with a Federal Minister the morning of the 20 th and are then coming to Queen's for my 50th reunion. On the morning of Thursday, October 26th, we will go to Ottawa and then return home via Toronto on the 29 th.

As far as I know, our schedule for the 26th and 27th is open except for a talk at a synagogue on Friday evening, the 27th. But I presume that it is now far too late to plan for an alumni meeting talk on the 26th. But luck next year!

With all good wishes, I remain,
Yours sincerely,
$\mathrm{AB} / \mathrm{cw}$


October 12, 1995

Dr. Alfred Bader
Astor Hotel Suite 622
924 East Juneau Avenue
Milwaukee, WI 53202
rira

## Dear Alfred:

Enclosed is the most recent draft of your schedule for October 18 to 26. With this letter I am also forwarding to you a letter from Mayor Bennett inviting you and Isabel to accept a Certificate of Appreciation from the City of Kingston. This event has been added to your schedule for October 24 at 7:30 p.m. pending your reply. I would be pleased to forward your response to the Mavor if you wish. Assuming you will accept, Stewart Fyfe, whom I believe you know, will accompany you to City Hall and we hope to adjust Bill's schedule so he and Claire also can attend. I believe Anndale and David also plan to attend. Florence has graciously adjusted her dinner invitation to 7:30 p.m. with the idea that you, Isabel and Marion will join about 8:00 p.m.

There also has been a change in the time of your meeting with Bill Saunderson on October 19. It is now scheduled for 9:00 a.m., October 19, in the same location. I understand this was necessary to accommodate other ministerial activities. I do hope this doesn't pose a problem for you and Isabel. Accordingly the meeting with Florence and David must be rescheduled. Perhaps you could meet over breakfast on the 19 or even the night before. Both Florence and David will be in Toronto on October 1.8 and David has suggested that he get in touch with you at that time to artange a get-together.

Both Melissa Kluger and Jennifer Baronian were pleased that you were interested in seeing them and will be at the Hillel meeting on October 23.

You had asked about your book sales here at Queen's. Although exact figures aren't available Diana Bristol tells me that there is no need to reorder for alumni weekend sales and book signing.

Included with the schedule are biographical notes on William Saunderson and Arthur Eggleton for your meetings of Octobex 19 and 20 respectively.

Finally, Bruce Buchan informs me that the book "Strategic Management" with the case on Sigma-Aldrich is not yet in print. Bruce had hoped to have a copy for you when you arrive but he expects now that copies won't be available until November sometime.

At this point I don't expect there will be much change in your schedule - but you never know! I will be in touch if there are changes. Please contact me if you have any questions or wish any scheduling adjustments.


YMZ:dsh
P.S. Cathy has been trying unsuccessfully to reach Marion Dick to see if we can be of help to her on the day of Marion's arrival at Summerhill. She will continue to try.


| BADER VISIT |
| :--- |
| October $19-27,1995$ |


| BADER VISIT |
| :--- |
| October $19-27,1995$ |

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Contact David MíCavish


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Contact: Bruce Buchan
Bruce will escort Baders as
necessary necessary
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Professor Volker Manuth

| McTavish home |
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| 184 Union Street |
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12:00 a.m.
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Dunning Lounge

MAYOK
THE CORFORATION OF
THE CITY OF KINGSTON

Dr. and Mrs. Alfred Bader
c/o Principal's Office
Richardson Hall
Queen's University
Kingston, Ontario K7L 3N3
Dear Dr. and Mrs. Bader:
On behalf of Kingston City Council and the citizens of the City of Kingston, I cordially invite you to attend an upcoming City Council Meeting to receive a Certificate of Appreciation for your generous donations to Queen's University.

The presentation is planned for October 24, 1995 at 7:30 P.M. in the Council Chambers, City Hall. If this date is inappropriate for you, could you kindly advise this office as soon as possible.

I look forward to seeing you on October 24, 1995.

/ec



The Honoureble WIIllam Seundortan

Minister of Eeanomio Davalapmeme Trade and Touriem

$P$rominent Ontario business leadar William Saundarson was appointed Minigiol of Erimnmic nevalinn. ment, trade and Tourism an June 26, 1995. The appointment was made as part of a atreamilnad cabingt of 19 mombers Introduced by Premiar Mike Harris, whose Progressive Conservativg party formed the government atrar winning the provincial election of June 8 .

Mr. Saunderson is the member for Eglinton. He took over a ministry with a groadened mandate, incorporating the tourism olvision of the former Ministry of Culture, Tourism and Recreation. The new Ministry of Economic Development, Trade and Tourism has a key role to play in improving the business climate, creating jobs, stimulating touflsm and raising Ontario's aconomic confidence.

Upon his appointment, Mr. Sauncersun sald: "I'c like to restore Ontario as the province of sconomic opportunity and the engine of economic growth in Canada." He added that ho wented to foster a positive business climate that would lesd to job creation, help balance the budget, make government lass intrusive, and put the principles of sound financial managemant into practice in the day-to-day affairs of government.

Mr . Saunderson graduated from the University of Toronto with a history dagres. Ha became e chartered accountant and worked for the firm Clarkson \& Gordon (now Ernst \& Young), Keeping
an bye on figures nelped him develod an athic of fiscal prudance that has become mne of his neffininn pegits

In 1971, he co-founded Scaptre Investment Counsel lid., which became One of Canada's leading money management firms. He left his final position as Vice-president to anter active politics as a provincial candidate. Mr. Soundarson has been involved in politics since 1981, raising funds for candidates in municlpal , provincial and federal elections. He also servad as financial comptrollar for the Progressive Consenvative national slection campaigns in 1984 and 1988.

Mr. Saunderson served as a member of the Ontario Pansion Commission from 1972 to 1983. He has an extensive natwork in businass, politics, church, charities and amateur sports. Among his many volunteer contributions, ha has lad major fundpeising campaigns for the University of Ottawa, Toronto's Qusen Elizabeth Hospital, Scouts Canada and Rowsing Canada. In 1994, the Univarsity of Otizwa awarced Mir. Saundarson an honorary doctorate in racognition of "a lengthy career as remarkable for its philanthropy as for its profassional accomplishments."

Mr. Saunderson and his wifs, Maradith, have thres grown children: Janat, a padiatrician: Brien, an anticling law stu• dent and member of the 1588 and 1992 Canadian Olympic rowing teams; and Pamela, a child therapist.

## Blographical Notes on the Honourable Arthur C. Eggleton, P.C., M.P.



Art Eggleton is in his second political career, having been elected to the Parliament of Canada on October 25, 1993, as the member for York Centre in the City of North York (Metropolitan Toronto). Shortly after that election, Prime Minister Jean Chrétien appointed him President of the Treasury Board and Minister responsible for Infrastructure.

Before this, Mr. Eggleton served for 22 years as a member of Toronto City Councll and the Metropolitan Toronto Council. From 1980 to 1991, he was the Mavor of Toronto, the longest servirg mavor in the city's history. Between 1973 and 1980, he served as City Budger Chief, the member of Council responsible for financial matters. In 1992, Mr. Eggleton received Toronto's highest honour, the Civic Award of Merit.

He has served on the Metropolitan Toronto Police Commission and the Board of the Canadian National Exhibition, as well as numerous committees and task forces dealing with many community issues. Mr. Eggleton has been a member of the Board for the Federation of Canadian Municipalities, Chairman of its Intarnational Programs Cormittee and Co-Chairman of the National Action Committee on Race Relations.

Mr. Eggleton worked as an accoumtant before being elected to City Cuwnil in 1900 He is married to Erenda and has a daughter, Stephanie.

OCT 191995

## OCT 131995

Dr. Malcolm Peat
Executive Director
The International Centre
for the Advancement of
Community Based Rehabilitation
Queen's University
Kingston, Ontario
K7L 3N6
Dear Dr. Peat,
I have recently learned that the International Centre for the Advancement of Community Based Rehabilitation has received a US\$500,000 donation from Dr. Alfred Bader to support the work of the ICACBR. I wish to offer my congratulations to you and your colleagues at the Centre for the important work you have undertaken, often in difficult and dangerous situations. Dr. Alfred Bader's generous gift is a very tangible recognition of the exceptional, innovative work with war victims and other persons with disabilities carried out by you and your colleagues.

I would be grateful if you would let Dr. Bader know that I greatly appreciate his generous donation which will make a significant contribution to rebuilding people's lives in this troubled region.

Yours sincerely,


André Ouellet

Tel 613 545-2616
Queen's University

Fax 613 545-6669

October 13, 1995

## Dr. Alfred R. Bader

924 East Juneau Avenue, Suite 622
Milwaukee, Wisconsin 53202
U.S.A.

Dear Dr. Bader:
Enclosed please find for your perusal a copy of an Academic Development Plan that has been written and approved by the Department of Chemistry at Queen's. It has been submitted to the Administration.

I thought you might appreciate being informed of our plans. I look forward to seeing you and Isabel again, this time in Kingston.

Sincerely,
Stan bram
R.S. Brown

Professor and Head.

# ACADEMIC DEVELOPMENT PLAN 

FOR
DEPARTMENT OF CHEMISTRY

QUEEN'S UNIVERSITY

September 1995

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## Section A

## INTRODUCTION

## I. OVERVIEW

This document is the culmination of a lengthy process of planning and selfevaluation in the Department of Chemistry. The process began with the (now defunct) Long Term Planning Committee (struck in September 1992) which produced a plan in December 1993. Although never ratified by the Department and not as broad in scope as the present document, ideas emerged which implicitly or explicitly have been retained. Furthermore it became widely accepted that planning is an important activity and that plans must be constantly modified in response to changing circumstances, some of which arise from the plan itself. In July of 1994, the Long Term Planning Committee became the (standing) Staffing Committee. After plans for academic development were requested of all departments by the Dean of the Faculty of Arts \& Science, the Department first underwent a self-evaluation phase in the fall of 1994/winter of 1995. The ensuing document, "Chemistry Self-Review, March 1995"[1], contains data and assessments on every aspect of academic, administrative, and technical operations. In the the spring and summer of 1995, the subsequent planning phase was undertaken. Five major areas were identified: Staffing, Space \& Renovations, Technical Resources, Undergraduate Studies, Graduate Studies \& Research. Five committees were formed, consisting primarily of faculty members; committee members and other contributors are acknowledged in Section I. The overall effort was directed by a coordinator. Each committee produced a draft document describing the status quo, discussing the need for change, and making specific recommendations. Each document was thoroughly vetted in a separate departmental meeting. Most recommendations were passed unanimously; a few were approved in spirit but sent back to the committee for reworking based on a consensus of opinion of those present. Individuals with specific objections to portions of a draft document were directed to submit same in writing to the committee chair. Revised drafts were circulated to all faculty and support staff, providing opportunity for further comment. These five revised documents have become, after appropriate cross-referencing and minor reshuffling of material, Sections B-F and, when supplemented by Section G on Public Relations, constitute the Department of Chemistry's Academic Development Plan (hereafter the Plan). The Plan contains 61 recommendations, each of which is set off from text and numbered consecutively within a section, e.g., Recommendation C3 indicates the third recommendation in Section C. The committee(s) and/or position responsible for implementation is indicated in brackets at the end of each recommendation. Staffing (Section B) is first because it is the cornerstone of the Plan and has implications for all other sections. The ordering of Sections C-F is significant only to the extent that Technical Resources (Section D) must follow Space and Renovations (Section C) since the former contains discussion and recommendations which explicitly depend on proposals appearing in the latter.

## II. BRIEF HISTORY OF DEPARTMENT

The first mention of a chemist in the annals of the University seems to occur in 1858, by which time the University had two faculties, the Faculty of Medicine and the Faculty of Theology and Arts. One George Lawson is listed as Professor of Chemistry in the Faculty of Medicine. In 1862, he was also styled Professor of Natural History in the Faculty of Theology and Arts. Lawson was replaced in 1866-67 by Robert Bell, who in turn was replaced in 1868-69 by Nathan Dupuis. After fifteen years as Professor of Chemistry, Dupuis moved in 1883-84 to become Professor of Mathematics and the Chair in Chemistry in both Faculties was filled in 1884-85 by W.L. Goodwin who was to be even more influential in the future life of Queen's than was Dupuis. By 1891-92, the two Faculties listed two appointments in Chemistry other than tutors: Goodwin, and an Assistant Professor (Nicol). In 1893, the School of Mines was formed with Goodwin as its director. The program in Mining Engineering was established in 1893, the programs in Chemistry and in Geology in 1895.

By 1912-13, with Goodwin still as Director of the School of Mines as well as being Professor of Chemistry, there was one Associate Professor of Chemistry (Walker), and three Assistant Professors (Bonner, Guttman and Waddell). At this point, calendar descriptions of programs in Arts tended to show large, general areas of study, without the well specified sets of courses which characterise the Arts and Science Faculty programs now. In 1918-19, the Arts Faculty adopted a structure more like its current one with a list of courses, although the choice among these were severely limited.

The first graduate degrees in science and engineering appear in the 1890's, although apparently only in Mining initially. Work was typically done off campus. It was not until 1922-23 that graduate degrees were formalized in something like their present form, with residence required on campus and an emphasis on research and a thesis. Graduate studies grew rapidly. All Applied Science departments were offering at least M.Sc.'s by this time.

In 1937-38, the beginnings of the current undergraduate structure in Arts and Science appear, with expression such as " 12 courses for the major" and " 5 courses for the minor" appearing in the Arts calendar for the first time. While the Arts program seems to have moved in large steps, driven by changes at the Faculty level, the Applied Science program evolved steadily. The latter was designated Program B (Mining was Program A) until the Faculty of Applied Science dropped letter designations in 1981: it has been called Chemistry and Mineralogy (1895-1912); Analytical and Applied Chemistry (1913-1920); Chemistry, subtitled Industrial and Research, (1921-1971); and Engineering Chemistry from 1971 until the present day.

As late as 1938, eighty years after the first appointment of a chemist, the Department of Chemistry numbered only six faculty: Neish and McRae as Professors; Logan and Frost as Associate Professors; and Munro and Dorrance as Assistant Professors. Indeed, despite a steady growth in students, the number of faculty in the

Department did not grow much in the forties and fifties either. By 1957-58, there were still only ten: four professors (Dorrance, Frost, Jones and Munro); two Associate Professors (Moir and Smith); three Assistant Professors (Breck, Russell and Wheeler); and one Lecturer (Stairs). In 1958-59, the Department became part of a newly created Faculty of Arts and Science. Shortly afterward, with Mcintosh as a newly appointed Head, the University embarked on a considerable expansion in which fourteen faculty were hired in the Department of Chemistry during the 1960's. The faculty complement peaked at 28 in the early 1970's and remained at this level for the rest of that decade. The current faculty complement is 24.5 with one position open and one position bridged to a retirement in 1996. The retirement of most of the cohort hired in the 60's will occur in a wave between 1999 and 2005, and its replacement is a central feature of the Plan.

## Section B

## STAFFING

## PREAMBLE

This section is divided into two parts. Part I describes the staffing strategy for academic appointments. It begins with a new departmental policy on the use of teaching adjuncts to replace faculty on leave, continues with the creation of two new positions (Instrument Manager, Laboratory Coordinator), and concludes with a plan for replacing the dozen regular faculty who retire between 1999 and 2008. Part II addresses numerous aspects of career development for faculty and staff, and also establishes policy concerning the relationship between the Department and retired faculty who remain "active". The term "career development" here embraces initiatives ranging from retraining of support staff, to mentoring junior faculty, to flexible work profiles. The objective is to maximize the productivity of our most valuable resources - faculty \& staff - on a sustained basis throughout a working lifetime, thereby improving the teaching and research environment in the Department.

## I. STAFFING STRATEGY

## 1. Adjunct Faculty

Undergraduate students deserve to be taught by experienced regular faculty to the greatest extent possible, and should not be exposed to a disproportionately high number of sessional instructors. There may be the occasional exception where external expertise is required. The use of sessional instructors has increased over the past 10 years or so (although not in the last few years) and is concentrated in 1st and 2nd years: In 95/96, 13 of about 65 (or about 20\%) half-course equivalents (HCEs) will be taught by adjuncts. Of these, $11.5(88 \%)$ occur in 1st and 2nd years and comprise $31 \%$ of the HCEs occurring at this level. We can best demonstrate our commitment to teaching by staffing most of our courses with full time academics. The money saved by hiring fewer adjuncts (than we currently do) will be used towards funding a Ph.D. level laboratory coordinator and/or a Ph.D. level instrument manager.

Recommendation B1. That teaching adjuncts be hired only to replace faculty on longer-term leaves for which replacement funds are provided (research fellowships, secondments to administration). This policy is to be phased in over a three year period. Increased attention is to be given to the hiring process for paid adjuncts, and to the terms and length of such appointments. [Staffing Committee, Head]

## 2. Laboratory Coordinator

The Department undertakes a large amount of service teaching in 1st year (CHEM 112,116, 120/121; total of approximately 1250 students per annum) and in its 2nd year organic course (CHEM 280/288; approximatley 500 students per annum). All such courses include laboratory sessions which we regard as an important aspect of understanding and doing chemistry. Most major chemistry departments have a large service load and employ a laboratory coordinator to deal with academic aspects of the undergraduate lab sessions. The primary beneficiaries are the undergraduate students with secondary benefits going to the regular faculty who can better focus their efforts on lecturing and research. The advantages to the laboratory program created by such a position are numerous:

- coherence and continuity
- improved safety training, awareness, enforcement
- improved pedagogical content: - upgrade existing experiments/design new ones
- train/oversee TA's
- identify equipment requirements/organize purchases
- improve lab manual/add new experiments
- optimize effectiveness of chemical technologist positions

If a lab coordinator were to lecture in an associated course, there would be an improved "link" between lecture and lab material. At the same time there would be some relief from the loss of adjunct teaching implicit in recommendation B1. Managing the student resource or help centre is an obvious task for the lab coordinator since this involves both lab and lecture material, involves supervision of TA's, and serves the same clientele as the lab. Further benefits accrue to the students and the Department if a lab coordinator is actively involved in research in chemical education.

Recommendation B2. That a laboratory coordinator be hired for all 1st year labs and for the $2 n d$ year organic labs. The incumbent must have a Ph.D. and will be responsible for all academic and safety aspects of these labs, overseeing shared teaching instrument rooms, overseeing the departmental resource centre, and supervising the chemical technologists. In addition the incumbent will be required to teach a total of two half-course units in an associated course(s), will sit on the Technical Resources Committee, and will be expected to be involved in, and be aware of, research in chemical education. [Curriculum Committee, Staffing Committee, Head]

This would not be a technician position. The supervisory responsibilities of the Lab Coordinator and the Administrative Assistant vis à vis the lab technicians would have to be clearly delineated. Administrative aspects of these labs and the resource centre would continue to be handled by support staff. The appointment would be made by the Head in consultation with the Staffing Committee and the unified Curriculum Committee. The inaugural appointment should be for the 96/97 academic year. This would be a term
appointment of length three years with the possibility of renewal subject to satisfactory performance. The position itself is to be permanent, but the academic and administrative implications of permanence for a particular incumbent is a matter for future discussion by the Staffing Committee, the Department, and the faculty office. Permanent funding for this position will be sought, with "soft" money used in the interim if necessary. The cost is offset somewhat because the incumbent would lecture, reducing the number of half course units to be covered by teaching adjuncts. Provisions for obtaining permanent funding are made in Section B.4. In 95/96 a trial run is being undertaken by assignment of a term appointee (Marina Koether) as acting Laboratory Coordinator.

## 3. Instrument Manager

Faculty supervision of departmental instrumentation is limited. The nuclear magnetic resonance (NMR) user committee is defunct, and there are no user committees for the mass spectrometer (MS) or X-ray facilities. Novel use of these major instruments, or even using them to their full capability, is restricted to those very few with the requisite expertise. The presence of a full-time Ph.D.-level expert whose mandate is to assist the research activities of all faculty would remove this limitation.

Currently the Department has no full-time person responsible for the management and operation of the NMR and MS facilities. Instead, the Department relies on, and is grateful for, the expertise of two faculty, B.K. Hunter (NMR) and J.A. Stone (MS), to train technical staff, implement new techniques, take charge of major repairs, and upgrade the instruments through grant applications. Neither is obligated to perform these services. Furthermore J.A. Stone retires in 2000 and B.K. Hunter in 2008. Hiring new faculty to cover this aspect of instrumentation is problematic and, in any case is risky because NSERC grant committees frown upon research proposals based in service work. The demise of NSERC Infrastructure Grants means that dedicated management of instrument facilities is now crucial and more time consuming: there are billing systems to administer (in place for NMR and being implemented for MS); outside business may have to be solicited; routine maintenance will be essential to minimize costly repairs. It is clear that a full-time instrument manager who can dedicate a substantial portion of time to managing the major equipment facilities is the best solution. Indeed most major Canadian chemistry departments have one or more instrument positions dedicated to the smooth operation of NMR, MS, and sometimes X-ray facilities.

Dedicated research instruments have been acquired mostly through NSERC Equipment Grants obtained by individuals or groups. There is typically no strategic or long-range planning for such applications at the Department level. An instrument manager who would spearhead planning for upgrades and new equipment, and coordinate equipment grant applications would be advantageous. Indeed, the very presence of an instrument manager is likely to be a key factor in determining the competitiveness of departmental equipment grant applications.

In the Section C on Space and Renovations, shared research instrument rooms are proposed in a renovated chemistry facility. An instrument manager would be responsible for setting up and managing these rooms, thus freeing up faculty time and providing "neutral" oversight of shared facilities.

An instrument manager would have expertise which should be shared. He/she would be responsible for training graduate students, postdoctoral fellows, and technical staff. The instrument manager would be expected to teach one or two half-course equivalents including one in the area of instrument theory/interpretation of data. This has the added benefit of providing some relief from the loss of adjunct teaching implicit in recomm. B1.

Recommendation B3. That an instrument manager be hired with expertise in NMR and/or MS. The incumbent must have a Ph.D. and will be responsible for managing some or all major departmental equipment facilities, overseeing any shared research instrument rooms, and supervising associated technical staff. In addition the incumbent will be required to teach one or two half-course equivalents, sit on the Technical Resources Committee, and train students, faculty, and staff to use research instruments. [Technical Resources Committee, Staffing Committee, Head]

This would not be a technician position. The supervisory responsibilities of the Instrument Manager and the Administrative Assistant vis à vis instrument technicians must be clearly delineated. The appointment would be made by the Head in consultation with the Staffing and Technical Resources Committees. The inaugural appointment should be for the $96 / 97$ academic year. This would be a term appointment of length three years with the possibility of renewal subject to satisfactory performance. The position itself is to be permanent but the academic and administrative implications of permanence for a particular incumbent is a matter for future discussion by the Staffing Committee, the Department, and the faculty office. Permanent funding for this position will be sought, with "soft" money used in the interim if necessary. The cost is offset because the incumbent would lecture, reducing the number of half course units to be covered by teaching adjuncts. Provisions for obtaining permanent funding are made in Section B.4.

In the long term, it may be necessary to have two instrument managers, one for NMR and one for MS. Our strategy is to establish the job description, find the salary money, and make a hiring for one instrument manager and defer consideration of the second until the end of the inaugural three-year term of the first.

## 4. Regular Faculty

## (i) Retirement Schedule

During the period 1995-2008, there will be 14 retirements and 1 replacement with the following timetable:

TABLE 1

| 1995 | Fortier (replacement) | 2002 | Norris, Gordon |
| :--- | :--- | :--- | :--- |
| 1996 | Buncel (bridged by Lemieux) | 2003 | Szarek |
| 1999 | Wan | 2005 | Baird, Baker |
| 2000 | Shurvell, Smith, Stone | 2006 | van Loon |
| 2001 | J. Brown, McCowan | 2008 | Hunter |

One of these positions (Buncel) has already been bridged and there is one new position (Bader Chair) to be filled. One position is currently vacant (Bolton) and can be filled immediately (allotted to the current inorganic search and designated $\ln 96$ below).

## (ii) General Considerations in Formulating Hiring Strategy

It is assumed that five year bridges will be allotted for each retirement replacement approved by the Faculty of Arts \& Science and that the Faculty will provide competitive startup funding. In a status quo situation (Scenario I) the Faculty would approve the filling of all vacated positions and there would be a maximum of 15 hirings during the next 10 years ( 14 replacements in Table $1+$ Bader Chair). Three other scenarios are considered in which the number of positions not filled is successively incremented by one. That is, Scenarios I, II, III, and IV entail the loss of 0, 1, 2, and 3 positions and represent faculty position reductions of $0 \%, 4 \%, 8 \%$, and $12 \%$, respectively.

Whereas the preceeding paragraph concerns external constraints, there are a number of internal constraints to consider in creating a hiring plan: departmental startup funds; quality and quantity of research space; adequate coverage of all undergraduate teaching areas; targeted research areas; difficulty in identifying/predicting research areas based either on "traditional" designations (an excellent example being the 1994/95 round of "inorganic" applications) or on "new" designations (which tend to be interdisciplinary, e.g. "materials"). Consequently the following provisos have been applied to the construction of a detailed hiring schedule plan:

- All positions labeled by core teaching areas: Analytical, Engineering, Environmental, Inorganic, Organic, Physical, Polymer, Theoretical. Identification is based on availability of introductory level course(s) (at 2nd or 3rd yr. level) and advanced level course(s) in same area. 1st year courses are excluded. It is recognized that the present core teaching areas may become obsolete under undergraduate curriculum revisions driven by the emergence of "new"
classifications of research in chemistry (e.g., materials science, environmental chemistry, \& biological chemistry). However, the usual delay between curriculum revision and changes in research focus makes it reasonable to assume that these traditional core areas will provide a useful framework for discussing teaching for at least the first five years of this plan.
- maximum of two hirings per year requiring departmental startup funds.
- hirings in any given area spaced by two or more years.
- hiring made at least one year before next retirement in given area to allow for limited teaching by new faculty in first year of appointment.
- strive for a more even distribution across the teaching areas.
- recognize that any hiring could be a professional engineer (P.Eng.).

Designation of positions for the first and second academic years of the Plan is relatively easy and a recommendation concerning hirings for these two years is made later. Beyond the 1997 year, the details become increasingly uncertain due to a variety of factors: difficulty in predicting specific research areas of faculty hired in the first two years; changing research interests of current faculty; unexpected loss of an existing faculty member; not knowing which position will be filled by someone with P.Eng. status; hiring freezes/deferments at the Faculty level; shuffling the order of hirings to captilize on an outstanding hiring opportunity (as was done to accommodate a physical chemistry application by an outstanding candidate in the fall of 1994). It is not productive to attempt to construct a ten year hiring plan on which all agree. A more realistic and useful approach is to recognize that any long-range hiring plan is dynamic, shifting slightly every time we hire someone, are unable to find a suitable candidate, or adjust to an imposed deferment. We should build flexibility into our hiring plan.

Recommendation B4. That the hiring plan be reviewed and revised annually by the Staffing Committee at the end of each academic year included in the Plan. If circumstances warrant, the hiring plan will be revised more frequently. Each revision of the hiring plan requires departmental approval. [Staffing Committee]

## (iii) Detailed Hiring Plan

A hiring schedule for 1996-2005 is presented in Table 2. Positions are designated by the teaching subdiscipline followed by the year of hiring, e.g., Env96 designates an environmental hiring during 1996 with the appointee presumably arriving at Queen's at the beginning of the 96/97 academic year. All 1996 and 1997 positions are discussed in the next subsection. Some analysis is provided in Table 3 (number of regular faculty on hand in each academic year) and Table 4 (coverage of core teaching areas on a year-by-year basis). In Table 4, each regular faculty member is placed in the core teaching area in which the majority of core teaching was done during the six academic years 91/92 to 95/96. First year teaching is excluded at the outset on the assumption that any Chemistry faculty member should be able to teach at this level. It is recognized that some faculty members do a significant amount of core teaching in a second core area but it seemed less confusing to assign a single entry in Table 4 to an individual than to attempt "subdividing" individuals or making double entries.

TABLE 2: HIRING SCHEDULE FOR REPLACEMENT OF REGULAR FACULTY, 1996-2005

Abbreviations: Inorganic (In) Analytical (An) Theoretical (Th) Organic (Or) Engineering Chemistry (EnCh) Physical (Ph) Environmental (Env)

Scenarios I, II, III, IV involve loss of 1,2,3 positions, respectively.

| Year of | Bridge | Core Teaching Designation of Position |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Scenario 1 | Scenario II | Scenario III | Scenario IV |
| 1996 | empty (0 years) | $\ln 96$ | $\ln 96$ | $\ln 96$ | In96 |
| 1996 | Wan (3) | Env96(*) | Env96(*) | Env96(*) | Env96(*) |
| 1996 | Fortier (0) | convert96 (II) | convert96 (TI) | convert96 (1) | convert96 (II) |
| 1997 | Shurvell (3) | Ph97 | Ph97 | Ph97 | Ph97 |
| 1997 | Stone (3) | EnCh97 | EnCh97 | not filled | not filled |
| 1998 | Bader chair (0) | Or98 | Or98 | Or98 | Or98 |
| 1998 | Smith (2) | Th98 | Th98 | EnCh98 | EnCh98 |
| 1999 | J. Brown (2) | Ph99 | not filled | not filled | not filled |
| 1999 | McCowan (2) | Weaver99( $\ddagger$ ) | Weaver99 ( $\ddagger$ ) | Weaver99 ( $\ddagger$ ) | Weaver99 ( $\ddagger$ ) |
| 2000 | Norris (2) | EnCh00 | EnCh00 (+) | EnCh00 (+) | not filled |
| 2000 | Gordon (2) | An00 | An00 | Th00 | Th00 |
| 2001 | Szarek (2) | Ph01 | Ph01 | An01 | An01 |
| 2001 | Baird (4) | In01 | In01 | Ph01 | Ph01 |
| 2002 | Baker (3) | An02 | An02 | In02 | In02 |
| 2003 | van Loon (3) | Ph03 | Ph03 | An03 | An03 |
| 2004 | Hunter (4) | In04 | In04 | Ph04 | Ph04 |

(T) money retained to support teaching \& research: Lab Coordinator, Instrument Manager, upgrade junior appt. to associate prof. level; see text in (iv).
$(\ddagger)$ half-position at appropriate level with remaining salary to Lab Coord./nstr. Manager
(+) aim for "engineer" who does research in phys. chem. to compensate for loss of Ph99
(*) must be analytical chemist

TABLE 3: TOTAL NUMBER OF REGULAR FACULTY ON YEAR BY YEAR BASIS, 1995/96-2008/09

- does not include Fortier, Lab Coordinator, Instrument Manager

| Academic Year | Scenario I | Scenario II | Scenario III | Scenario IV |
| :---: | :---: | :---: | :---: | :---: |
| $1995 / 96$ | 24 | 24 | 24 | 24 |
| $1996 / 97$ | 25 | 25 | 25 | 25 |
| $1997 / 98$ | 27 | 27 | 26 | 26 |
| $1998 / 99$ | 29 | 29 | 28 | 28 |
| $1999 / 00$ | 29.5 | 28.5 | 27.5 | 27.5 |
| $2000 / 01$ | 28.5 | 27.5 | 26.5 | 25.5 |
| $2001 / 02$ | 28.5 | 27.5 | 26.5 | 25.5 |
| $2002 / 03$ | 27.5 | 26.5 | 25.5 | 24.5 |
| $2003 / 04$ | 27.5 | 26.5 | 25.5 | 24.5 |
| $2004 / 05$ | 28.5 | 26.5 | 24.5 | 25.5 |
| $2005 / 06$ | 26.5 | 24.5 | 24.5 | 23.5 |
| $2006 / 07$ | 25.5 | 23.5 | 23.5 | 22.5 |
| $2007 / 08$ | 25.5 | 24.5 | 22.5 | 22.5 |
| $2008 / 09$ |  |  |  | 21.5 |

TABLE 4: COVERAGE OF CORE TEACHING AREAS UNDER SCENARIO I, 1995/96-2008/09

- core teaching areas as identified in subsection (ii)
- includes new faculty with designation from Table 2, existing faculty with retirement year in parentheses.
- does not include Lab Coordinator, Instrument Manager
- individuals assigned to one category based on majority of teaching:

Inorganic (In): Baird (05), Macartney, In96, In01, In04
Organic (Or): S.Brown, Buncel (96), Lemieux, Szarek (03), Thatcher, Or98, Weaver99 (0.5)
Physical (Ph): J. Brown (01), Gordon (02), Shurvell (00), Stone (00), Wan (99), Ph97, Ph99, Ph01, Ph03
Polymer (Poly): Natansohn
Analytical (An): Beauchemin, van Loon (06), An00, An02
Environmental (Env): Env96
Engineering Chemistry (EnCh): Baker (05), Hesp, Hunter (08), McCowan (01), Norris (02), Whitney, EnCh97,EnCh00
Theoretical (Th): Becke, Smith (00), Wardlaw, Th98

| Population of Teaching Areas on Year by Year Basis (Scenario I) |  |  |  |  |  |  |  |  |  | Min. \# of P.Eng. = \# of existing P.Eng. plus EnCh97,00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Academic Year | In | Or | Ph | Th | An | Env | Poly | Ench | Totals |  |
| 1995/96 | 2 | 5 | 5 | 3 | 2 | 0 | 1 | 6 | 24 | 5 |
| 1996/97 | 3 | 4 | 5 | 3 | 2 | 1 | 1 | 6 | 25 | 5 |
| 1997/98 | 3 | 4 | 6 | 3 | 2 | 1 | 1 | 7 | 27 | 6 |
| 1998/99 | 3 | 5 | 6 | 4 | 2 | 1 | 1 | 7 | 29 | 6 |
| 1999/00 | 3 | 5.5 | 6 | 4 | 2 | 1 | 1 | 7 | 29.5 | 6 |
| 2000/01 | 3 | 5.5 | 4 | 3 | 3 | 1 | 1 | 8 | 28.5 | 7 |
| 2001/02 | 4 | 5.5 | 4 | 3 | 3 | 1 | 1 | 7 | 28.5 | 6 |
| 2002/03 | 4 | 5.5 | 3 | 3 | 4 | 1 | 1 | 6 | 27.5 | 5 |
| 2003/04 | 4 | 4.5 | 4 | 3 | 4 | 1 | 1 | 6 | 27.5 | 5 |
| 2004/05 | 5 | 4.5 | 4 | 3 | 4 | 1 | 1 | 6 | 28.5 | 5 |
| 2005/06 | 4 | 4.5 | 4 | 3 | 4 | 1 | 1 | 5 | 26.5 | 4 |
| 2006/07 | 4 | 4.5 | 4 | 3 | 3 | 1 | 1 | 5 | 25.5 | 4 |
| 2007/08 | 4 | 4.5 | 4 | 3 | 3 | 1 | 1 | 5 | 25.5 | 4 |
| 2008/09 | 4 | 4.5 | 4 | 3 | 3 | 1 | 1 | 4 | 24.5 | 4 |

## (iv) 1996 and 1997 Hirings

## Inorganic Position, 1996 (In96)

This hiring was approved by the Faculty of Arts \& Science in the fall of 1994. Applications were assessed in the winter of 1995 and a short list produced in the spring. Three candidates were interviewed in June but none was selected. The position remains open and approval has been sought for tier II advertising (open to non-Canadians). Required startup funding is likely to exceed $\$ 100 \mathrm{~K}$ based on estimates provided by shortlisted applicants.

## Environmental Position, 1996 (Env96)

This position has been attached to the Environmental Science Program by the Faculty. The position has been approved and an advertisement is to appear in the fall of 1995. The hiring process is being handled by Chemistry in consultation with the Program Director and the Faculty. The Faculty is expected to provide startup funding.

It is essential that his position be filled by an analytical chemist. The Department currently has only two faculty members who teach and do research in analytical chemistry: Diane Beauchemin and Gary van Loon. Consequently research in this area is diminished by the paucity of regular faculty who concommitantly carry higher than average teaching loads on a regular basis. Since the advent of the Environmental Science Program, at least half of van Loon's teaching has been associated with this program. Analytical teaching has been covered in the meantime by Beauchemin and Marina Koether, who finishes a term appointment at the end of the 95/96 academic year. The Department has been assured by the Administration [2] that no more than half of the teaching load of the Env96 position will be allocated to the Environmental Science Program. This is expected to release van Loon to do more analytical teaching. The other component of the Env96 teaching load is to be at the disposal of the Department to allocate to analytical courses. Provision needs to be made to cover analytical and environmental teaching during the first two years of the Env96 position, in light of the Department's policy of a reduced teaching load for junior appointees (Recommendation B11). It is the Department's firm position that the analytical chemistry research effort associated with this position be housed in the chemistry buildings which provide a natural setting for research activities and graduate students in analytical chemistry. Such an arrangement is necessary to increase the Department's research profile in this area, a boost which is essential if this department is to be come one of the top-ranked Canadian chemistry departments. The nature and location of the environmental aspect of the appointee's research program remains to be arranged.

## Converted Position, 1996 (Convert96)

The Department continues to receive about $\$ 45 \mathrm{~K}$ per annum as compensation for the secondment of Suzanne Fortier to administration. This money has been used to hire adjunct replacements, most recently Alex Roszak. Fortier has started a second five
year term, and standard practice suggests that the Department will receive approval to fill the position on a permanent basis. The "convert" designation indicates using this position in an entirely different way as described below.

The traditional approach to staffing is to pursue vigorously 1 for 1 replacement of every faculty position. However, sheer quantity of regular faculty is no guarantee of a better learning environment for students or a better research environment for research personnel and faculty. Conversion of a single faculty position into support for teaching and research can have a significant impact on quality and productivity if judiciously done. The Lab Coordinator and Instrument Manager positions have been proposed for this purpose. Both require salary support: net cost to the Department for each is anticipated to be $\$ 33-38 \mathrm{~K}$ ( $\$ 40-45 \mathrm{~K}$ salary $+\$ 5 \mathrm{~K}$ benefits less $\$ 12 \mathrm{~K}$ for teaching 2 half-courses). Another way to enhance quality, as opposed to quantity, is to make a selected appointment at the associate professor level. This would be a good tactical move when a suitable candidate appears in an area needing an immediate teaching or research boost. The cost of upgrading from the assistant to associate level is about $\$ 20 \mathrm{~K}$.

Recommendation B5. That the Department seek Faculty approval for the position denoted convert96 immediately upon completion of the Academic Development Plan. If the position is approved, the Department would immediately request that the associated salary money be apportioned among salaries associated with the Lab Coordinator position, the Instrument Manager position, and an upgrade from an assistant to an associate professor appointment in a manner to be determined by the Department.

## Physical Position, 1997 (Ph97)

There are five faculty who may be designated physical chemists in terms of both teaching area and research expertise. Between 1999 and 2002 all five retire. In terms of coverage of teaching, a physical chemistry hiring could apparently be deferred several years. However in terms of research, it is imperative that hiring begin in 1997. There are several reasons for this urgency. First, three physical hirings appear in Table 2 but all are spaced by two years due to expected high startup costs ( $\$ 200 \mathrm{~K}+$ ) which will need to be amortized over several years. If the 1st of these hirings is shifted by, say, two years, then a teaching crisis in this area will occur because the 2nd and 3rd hirings will also be displaced by two years. Second, current physical chemistry research is heavily skewed towards conventional spectroscopic techniques and physical phenomena which can be studied by these techniques. A number of new techniques have emerged in the past 25 years (e.g., molecular beams, picosecond and femtosecond pulsed lasers, scanning tunneling microscope, electron energy loss spectroscopy) and have been used to probe properties of a variety of physical phenomena (e.g., surface structure, surface chemistry, elementary chemical reactions, laser control and initiation of chemical processes). Unavailability of these techniques and the absence of research in these newer areas of physical chemistry place this department far behind any Canadian chemistry departments with which it would like to be compared and hampers recruitment of graduate students in the physical chemistry area. The need to broaden and update
physical chemistry research has been recognized for some time. Attempts to remedy this situation by making an appropriate hiring during the last 10 years has failed on every occasion for various reasons, including inadequate startup funding. It is imperative that replacement of the physical chemists begin at the first opportunity.

Recommendation B6. That the Department seek Faculty approval for the position denoted Ph97 immediately upon completion of the Academic Development Plan. The position is to be held by an individual capable of teaching physical chemistry and doing research in any area compatible with the Department's research objectives. Advertising will begin in the fall of 1996 and will encourage P.Eng.'s to apply. The objective will be to have the position filled by the beginning of the 97/98 academic year. [Staffing Committee]

## Engineering Chemistry Position (EnCh97)

Accreditation of the Engineering Chemistry program is contingent upon various facts, including exposure of estudents to istructors who Is Cone Prossional Engineer (P.Eng.) status. The program has been questioned in terms of certification, apparently because of the low number of P.Eng.'s on staff. Thus more P.Eng.'s may be required to deliver the program and possibly to "reclaim" a few key courses given in the Chemical Engineering Department. This teaching aspect of the program might be solved by hiring a P.Eng. in any one of the positions $\operatorname{In} 96$, Env96, and Ph97 described above. Advertisements for these three positions will solicit applications from engineers but will not exclude non-engineers. The research profile of this program is low because only two faculty (Baker \& Hesp) are doing research in engineering chemistry and they work in one particular area (applied polymer chemistry). Strengthening the research component would strengthen the entire program by removing the perception that it is almost entirely an undergraduate teaching operation that could be moved to another unit. This would have the added benefits of exposing undergrads to a broader range of engineering chemistry research and increasing the graduate student cohort in this area. To broaden the scope of research in the program, the Engineering Chemistry Curriculum Committee has recommended the areas of (a) experimental kinetics, thermodynamics, and modeling or (b) materials science for this position. In Scenarios III and IV the EnCh97 position is deferred one year.
Recommendation B7. That the Department seek Faculty approval for the position denoted EnCh97 immediately upon completion of the Academic Development Plan. The position is to be held by an individual holding or qualified to obtain P.Eng. status, capable of teaching in the Engineering Chemistry program, and doing engineering oriented research in any area compatible with the Department's research objectives. Advertising will begin in the fall of 1996 and will be directed at P.Eng.'s. The objective will be to have the position filled by the beginning of the 97/98 academic year. Under reduction scenarios III and IV, this position would not be filled until 1998/99.

## (v) Implementation

In order to hire the best new faculty and maintain flexibility with respect to the research area of new faculty, the teaching and research areas should be uncoupled, with the exception of the Env96 position which has previously stated constraints. The first priority is covering teaching areas. Next is the research area which should be one of the primary targets identified in Recommendation F2 (materials science, biological chemistry, environmental chemistry), or in selected cases a secondary target (an unanticipated new area, an area in which department is void or greatly under-represented, or an area involving new or existing instrument technology of interest to the Department). The Staffing Committee will deal with these matters. The newly created Physical Space Committee will be responsible for identifying and arranging appropriate research space for each position. In this regard a renovated facility is absolutely essential to our chances of "landing" successful candidates. It is needed sooner rather than later. Startup funds will be provided jointly by the Department and the Faculty of Arts and Science with a $25 \% / 75 \%$ split. Much larger amounts than have been offered in the past will be necessary in order attract the best candidates and land our first choice. A startup package of approximatley $\$ 200 \mathrm{~K}$ recently offered to a physical chemistry applicant studying laser-initiated chemical processes is indicative of what is required for a new appointee in physical chemistry. The Faculty's existing policy of a $\$ 35 \mathrm{~K}$ maximum contribution to startup packages is unrealistic and detrimental to Queen's University.

Recommendation B8. That new faculty be supported with startup funds which are competitive, and on the order of $\$ 100,000$ for synthetic chemists and much more for chemists requiring expensive, dedicated instrumentation.

## (vi) Half-time Appointment for Don Weaver in 1999

Don Weaver currently has a half-time appointment in the Faculty of Medicine and a half-time appointment in chemistry. The Department currently provides none of his salary. He derives salary by performing clinical service work and from a Ministry of Health Scientific Award which is a 10 year fellowship expiring in 1999. He is not obligated to do any core teaching in this department, but does a 400/800 level specialty course in medicinal chemistry on a regular basis. Don has stated repeatedly that he wants a permanent half-time position in chemistry. It would be to the department's advantage to retain him. The position would be at a senior level but probably without tenure, for which Don would presumably apply immediately. Any remaining salary money from this use of a junior position would be used to diminish or eliminate any existing soft money component of the Lab Coordinator or Instrument Manager salaries.

Recommendation B9. That Don Weaver be offered a half-time tenure-track position at an appropriate rank for the beginning of the 1999/2000 academic year.

## II. CAREER DEVELOPMENT

## 5. Junior Faculty

A great deal of time and thought will go toward hiring the very best young scientists to fill the many upcoming positions. Once a new incumbent is in place, there has been a tendency to let her/him "sink or swim". Departmental, university, and societal interests are best served if the incumbent is successful in teaching and research for a working lifetime. In the formative years there is a departmental responsibility to provide active and passive support for junior faculty.

Recommendation B10. New junior faculty will be associated with a mentor(s) who will provide guidance concerning research agencies and proposals, attracting and working with graduate students, publications, and teaching. [Staffing Committee, Head].

Recommendation B11. The Department will continue its policy of not overloading junior faculty with teaching and administration, in order to allow for the establishment of productive research programs. In the first and second years of appointment, junior faculty will normally be assigned a teaching load not exceeding one half-course equivalent and two half-course equivalents, respectively. [Staffing Committee, Head, mentors].

Recommendation B12. The Department and mentors will actively promote good teaching by (a) making new appointees aware of the full range of pedagogical support available through the Instructional Development Centre; and (b) obtaining remedial assistance for junior faculty members who receive negative teaching evaluations in the first three years of appointment. [Staffing Committee, Head, mentors].

## 6. Performance Appraisal and Work Profiles

In the Faculty of Arts \& Science Academic Development Plan, it is recommended that "Following negotiations with the Head and the Dean, both short- and long-term variations of the 40/40/20 rule could be explicitly recognized over the course of an individual's career". When the former Dean (Dave Turpin) visited the Department last year, he indicated that such variations could not be extreme (e.g., all research) and that the average profile for a department had to be somewhere near the 40/40/20 apportioning. The use of negotiated responsibility profiles was proposed in this department about two years ago by the former Long Term Planning Committee, but has yet to be implemented. In the following recommendation, HBG denotes the Heyding-Brown-Gordon method of assessing teaching loads (see Recommendation E9).

Recommendation B13. That each regular faculty member negotiate a medium term (three to five years) responsibility profile with the Head, subject to approval by the Dean's office. The minimum teaching component of any profile will be two half-course equivalents but otherwise HBG units will be used to assess relative teaching load for lecture courses. The supervision of undergraduate and graduate research students and other research
personnel should be recognized and evaluated within the categories of teaching and research in the construction of each faculty member's profile. [Head, Faculty of Arts \& Science]

## 7. Teaching Loads

In the absence of any reaction by the Department, recent enrollment trends combined with declining funding for universities strongly suggest that teaching loads will increase with a concomitant decrease in the time available for research. (Time devoted to administration is unlikely to decrease and, with the possible loss of several positions plus a large number of junior faculty, is likely to increase.) A number of scenarios for handling the departmental teaching load are presented in Part III of Section E on Undergraduate Studies.

Recommendation B14. That the Staffing Committee monitor teaching loads annually and make recommendations to the Head and the Department concerning various scenarios for limiting increases in, or capping, the departmental teaching load. [Staffing Committee]

## 8. Retired Faculty

Twelve of fourteen faculty retiring between 1996 and 2008 are research active and a number of these are likely to remain so. Even if only six of twelve continue their research programs after retirement, this would have a significant impact on departmental resources. In order to ensure that regular faculty, particularly junior appointees, are not adversely affected, it is important to establish policy concerning retiring faculty.

Recommendation B15. That retired faculty who remain research active be given space subject to limitations as determined by the space needs of regular faculty. [Physical Space Committee, Head]

Recommendation B16. That retired faculty may be allowed to co-supervise graduate students subject to (a) rules and policies of the School of Graduate Studies; and (b) approval of the Head in consultation with the Graduate Studies Committee. [Graduate Studies Committee, Head]

The premise here is that departmental resources (space, grad students, teaching assistant money, bursaries, scholarships, etc.) should go preferentially to regular faculty. Research active retirees would be expected to supervise more research associates/postdoctoral fellows and fewer graduate students. Lab and office space would be provided, but would almost certainly be smaller and might involve relocating. The co-supervision would have to be "genuine", i.e., the regular and retired faculty must have equivalent supervisory roles. Having a regular faculty supervisor as a "figurehead" would be unacceptable, and the retired co-supervisor would have to offer unique and distinct contributions to the supervisorship.

## 9. Staff Development

The knowledge, technical abilities, and commitment of technical and administrative support staff have a profound effect on the teaching and research environments in this department. It is in the best interest of the Department and the individual staff member that he/she be productive, motivated, and have job satisfaction throughout a working career. Not enough attention has been paid in the past to professional development and upgrading of support staff. The involvement of staff in planning and on committees initiated in the self-review process and expanded in the creation of the Plan should be continued.

Recommendation B17. Support staff will continue to be involved in planning activities and will be represented on appropriate committees and at relevant departmental meetings. [Head]
Recommendation B18. Each staff member or appropriate group of staff members will be partnered with a faculty liaison to whom staff may bring concerns and suggestions concerning safety, workplace conditions and equipment, retraining, supervisory problems, etc. [Head, Staffing Committee]

Recommendation B19. That the Department make a commitment to professional development and upgrading for support staff by (a) allocating an annual budget for this purpose, (b) targeting technical and administrative areas where retraining/upgrading is essential for the department, and (c) encouraging staff to apply for retraining/upgrading courses, workshops, etc.[Technical Resources Committee, Head, Administrative Assistant]

[^7]
## Section C

## SPACE AND RENOVATIONS

## PREAMBLE

Chemistry is currently housed in a complex of three buildings, constructed over a period of some fifty years and subjected to many piecemeal renovations since. Although the total assignable floor space could be judged adequate for present operations, any increase in enrollment or research activity (especially the Bader Chair) will certainly require additional space. A much more pressing issue is the unacceptable quality of most of the existing space. Much of it falls short of modern health and safety standards, especially with regard to ventilation. Services are inadequate. The layout is awkward, inefficient and wasteful of space, and the existing structure makes renovations difficult and expensive.

New and improved facilities, carefully designed to modern standards and laid out in an efficient and convenient manner, are badly needed. This will almost certainly require some demolition and new construction as well as renovation. Policies must also be developed for efficient and flexible allocation and management of space in a manner consistent with the Department's objectives.

Several in-house documents assisted the development of this section. A Draft Discussion Paper on Space [3] gives a detailed account of the use of space in the present Chemistry complex and is the source of all statistical data quoted in this report. Section III of the Self-Review [1] also provides background data. Thoughtful submissions from several faculty and technical staff were much appreciated and Ken Roth of the Campus Planning Office provided useful insights. The Committee visited the new chemistry buildings at the University of Ottawa on 13 July, 1995, and is grateful to Dr. Alex Fallis for his attentive hospitality. These buildings incorporate many of the suggestions made here, especially with regard to fumehoods, ventilation, and carefully planned layout. Air quality in the synthetic labs at Ottawa was much better than that in the corridors and offices at Queen's. Using Ottawa as a model, the Required Standards laid out in Section C. III are by no means excessive or unusual.

## I. COUNCIL OF ONTARIO UNIVERSITIES (COU) GUIDELINES

These standards are intended as a guide to space needs at a university-wide level, and it is far from clear how they should be applied at the departmental level. However, they provide a rough indication of our entitlement to space. The following input parameters are assumed:

[^8]The COU formula gives the following entitlements in the specified types of space:
TABLE 1
(Data from Ref. 3, and differ slightly from Campus Planning data.)

| COU Formula | COU area (m²) | Present area <br> $\left(\mathrm{m}^{2}\right)$ |
| :--- | :---: | :---: |
| Undergrad labs: $0.6 \times$ weekly lab contact hours | 3347 | 2450 |
| Research labs: $(45 \times$ faculty $)+(22.5 \times$ (grads + researchers) | 3420 | 2771 |
| Research offices: $5.2 \times$ (grads + researchers) | 520 | 641 |
| Faculty offices: $19.4 \times$ faculty | 504 | 549 |
| Administrative offices: $16.9 \times$ office staff | 152 | 221 |
| Departmental service | N/A | 317 |
|  |  | 7943 |

Research offices includes desk space within laboratories. Departmental service should presumably be partitioned between undergrad and research labs, and COU makes no separate provision for technical staff. Classrooms, the library, and other areas not under departmental control are not listed. Corridors, washrooms, etc are not considered assignable space. In the light of these rough guidelines, total assignable floor space is not the most pressing problem, at least for present activities.

## II. INADEQUACIES OF THE PRESENT BUILDINGS

Gordon Hall, built about 1915, has $1982 \mathrm{~m}^{2}$ of assignable space. It currently houses many organic laboratories, but these do not meet modern standards and the structure of the building makes improved ventilation and other renovations very costly. A heritage limestone building, it cannot be demolished, and would better be devoted to offices, classrooms, and other uses which require minimal services.

Gordon Annex ( $1803 \mathrm{~m}^{2}$ ) was built in the 1940's, is awkwardly laid out with temporary interior walls, and has minimal fumehood capacity. Ideally it should be demolished and replaced by higher quality space.

Frost Wing ( $4049 \mathrm{~m}^{2}$ ) was built in two stages in the 1960's. Its narrow profile leads to inefficient use of space. There are continuing problems with floor tiles, window closure, and peeling plaster on external walls. It has only a partial basement, without windows, and its floor levels do not match those of the other two buildings. Its loading dock is poorly
designed and inadequate. The basement vault intended for solvent storage is unsafe, and can no longer be used for that purpose. Fumehood capacity is inadequate, but ducts are now being installed to provide for 30 to 50 additional fumehoods on the top three floors. As well as offices and laboratories, Frost Wing contains a 120 seat lecture theatre which is too small for most of our large classes, and a branch library which will probably be relocated to Douglas Library

Most of the laboratories in the Department have far too few fumehoods, and ventilation in general is often inadequate. In many areas the air quality is occasionally so poor as to be considered dangerous and unhealthy. Many researchers must do their desk work in the same poorly ventilated rooms in which they do experimental work.

Several of the teaching laboratories are overcrowded. Electrical services are overloaded in many parts of the complex. Few rooms have proper climate control, and heating is often unresponsive, lagging 24 hours or more behind changes in the weather There is a lack of well-serviced, but open and flexible, space for heavy equipment and specialized apparatus.

Lecture rooms lack modern audio-visual and demonstration facilities. GA20 and GA30 are unattractive and awkwardly shaped. There are no facilities for large (>120) classes and too few smaller rooms for meetings, small classes, tutorials, and computer-aided instruction.

The Frost Wing machine shop is cramped and windowless with poor ventilation, and the glassblowing shop lacks adequate ventilation and temperature control. Storerooms are widely scattered and the loading dock is awkward and poorly designed.

The administrative offices are located in an awkward and narrow space on the 4th floor of Frost, and are difficult for visitors to find.

Because of differing floor levels and the lack of a full basement in Frost Wing, interconnections between different parts of the complex are tortuous and few. Movement of equipment is very difficult, and wheelchair access to Gordon Annex and Gordon Hall is inconvenient. Facilities of a given sort such as classrooms, undergraduate labs, instrument rooms, workshops, stores, and research facilities in cognate fields are randomly located throughout the complex, leading to chaotic traffic flow and inefficient use of staff time, and discouraging fruitful collegial interactions.

RECOMMENDATION C1. The Department must continue to impress upon the University that the present Chemistry buildings are unacceptable by modern health and safety standards and provide a wasteful, inefficient, and inadequate setting for the Department's activities. [Head]

## III. REQUIRED STANDARDS FOR FACILITIES

The layout of the complex must be rationalized taking into account: traffic flow; ready accessibility of heavy-use areas such as lecture rooms, undergraduate laboratories, and administrative offices; receiving, storage, and transport of supplies and heavy equipment; safe storage of solvents and noxious chemicals; the grouping of facilities serving a common function (undergraduate laboratories, stores and workshops, research labs, offices and instrument rooms for a given subdiscipline); efficient centralization of facilities requiring a high level of ventilation and other services; and provision of basement space for heavy and vibration-sensitive equipment.

There should be a spacious and attractive entrance lobby with seats and display facilities, close to major lecture rooms and undergraduate facilities and to the administrative offices. A reading/study/computer room (particularly necessary if the Chemistry library moves to Douglas), and a spacious and attractive lounge for all members of the Department (intended to encourage fruitful informal interactions between faculty, staff, graduate and
senior undergraduate students) should be located nearby as part of this "departmental centre".

Connections must be made between all floors of the different buildings. A high-capacity elevator, with access to the differing floor levels, might be installed at the junction of the Frost Wing and Annex (or the junction of the Annex replacement and Gordon Hall if the Annex is rebuilt with floor levels matching those of Frost). If structural considerations make it impractical to link this elevator to the basement of Frost Wing, the present loading ramp and stores should be relocated. The loading ramp must in any case be redesigned. Ramps or staircases for pedestrians should supplement this elevator in linking the different floor levels, and there should be corridor access between the different buildings without having to pass through laboratories.

Synthetic research laboratories should have at least one fumehood per worker plus additional ones for permanent setups such as solvent stills. With this many fumehoods, open bench area could be reduced by perhaps $40 \%$. Ventilated storage cupboards for solvents and other chemicals should also be provided. Non-synthetic laboratories, prep-rooms, and technical shops where occasional chemical work is done should each have at least one fumehood. In addition, there should be a liberal supply of ventilation hoods on adjustable "elephant trunk" ducts wherever emissions are likely (certain tools and instruments, venting of vacuum pumps, etc). Research workers should be provided with separately ventilated desk space, physically separated from space used for chemical work or containing noisy or hazardous equipment. Copious electrical services and communications wiring should be provided throughout. Air conditioning throughout the complex would improve productivity, and is essential in all rooms housing sophisticated instruments, where low-boiling solvents are used, or where heat is generated by equipment. Efficient ventilation and responsive heating is needed throughout.

Laboratory and instrument room design should provide for maximum flexibility to allow for new and specialized equipment and instruments, evolving research needs, and expanding and contracting research groups. Rooms intended for large instruments should be as open and uncluttered as possible, with flexible delivery of services from racks suspended from the ceiling. Basement space should be provided for large, heavy, vibration-sensitive, or vibration-producing equipment. Instruments intended for shared use by several groups should be housed in central locations.

Undergraduate labs should be grouped together for more efficient deployment of technical staff and shared equipment, and to rationalize traffic flow to and from large classes. Several types of laboratory are needed: 1st year labs (present overcrowding must be alleviated, ventilation needs improvement); physical and analytical chemistry labs in which equipment is permanently set out and students rotate between stations for different experiments (better electrical services, some air conditioning, benches and fumehoods for "wet" analytical work, space for 3rd as well as 2nd year physical chemistry needed); synthetic labs for organic and inorganic chemistry (more fumehoods needed); and an undergraduate instrument room (air conditioning, some fumehoods needed). Prep rooms and space for technical staff, office space for laboratory coordinators, student resource centres, and well-designed boxes and notice boards for collecting and returning assignments and posting answers to assignments should be located nearby.

Lecture halls should be attractive, appropriately shaped, with excellent ventilation, temperature control, acoustics and sightlines, adequate tables or tablets for note-taking, ample chalkboards, projection screens which do not obscure the chalkboards, state-of-the-art audio-visual and computer-display facilities, and chemical demonstration facilities. Projection screen size and the location of overhead projectors to give adequate magnification should be planned to match the size of the hall. The number and size of larger lecture halls required is discussed in Subsection V.1. In addition there is a need for several flexible rooms, seating 10-30 persons with movable chairs and tables, for small classes, tutorial groups, drop-in resource centres for large-enrolment classes, meetings and seminars, and computer-aided instruction. The need for tutorial space will increase if lectures are to be delivered to larger groups.

Storerooms must be collected together in a location convenient to users, with easy access to an improved loading dock, and with facilities for the safe storage and dispensing of solvents and chemicals as well as a wide range of other supplies. In Section D (Technical Resources), there are recommendations concerning an increased degree of central departmental purchasing, and computerized inventory control. This will likely require increased office space for stores staff as well as more storage space and a self-service dispensing area. Safe storage for waste solvents and chemicals, garbage, and material to be recycled should also be located close to the loading dock.

Technical shops must be designed according to the same criteria for ventilation, temperature control, electrical services, and convenient central location outlined above for research facilities.

Offices need not be large, but should be pleasant, convenient, and space-efficient. Administrative offices should be grouped together in a central location easily accessible to the public. Faculty offices would ideally be located close to the research labs of their occupants. However, it may prove prudent to concentrate them (together with meeting rooms, computer clusters, and other facilities requiring minimal services) in a renovated Gordon Hall.

## IV. POSSIBLE SCENARIO FOR IMPROVED FACILITIES

A range of scenarios for providing improved facilities, including new construction on a greenfield site, must be given careful consideration. A scenario based on the existing site might group all the undergraduate laboratories on the lower floors of a renovated Frost Wing with synthetic research space above. The FG15 lecture room would be renovated and expanded (using theatre type seats with writing tablets?) to hold up to 180 students. The vacated library space could be used for administrative offices and a reading/study room.

Gordon Hall would be renovated and devoted chiefly to classrooms, offices, computer facilities, and similar uses with minimal need for ventilation and services.

The Annex would be demolished and replaced by a newly-constructed, wider, state-of-the-art building (with a full basement) to house most of the research laboratories and support facilities. Floor levels should match those of Frost. The connecting basements of the new building and adjacent Gordon Hall would be reserved for laboratories and workshops housing heavy equipment.

The best location for an improved loading ramp and adjacent stores facilities is problematic. Vehicle access to the new Annex via Union Street or the busy lane behind Douglas Library seems impractical. The present ramp could be improved (possibly with access at street level, encroaching into the FG8 laboratory), or a new one could be built leading into FG13 (and also Nicol Hall ?) in the space behind Nicol Hall. The windowless basement of Frost could be used for storage, with stores offices on the floor above. However, both these approaches would encroach on the new undergraduate laboratory area, and, unless the Frost basement can be linked to the other buildings, it would not ease the problem of transporting equipment and supplies to and from the stores.

Fleming Hall is adjacent to Frost, could be linked to it by bridges at all but ground level, and currently houses offices which could be located elsewhere. If expansion of Chemistry onto new land is found to be necessary (permanently, or temporarily during construction), this is one possibility.

## V. DETAILED REQUIREMENTS

Translation of this subsection into an architectural plan requires specific input which is beyond the scope of the Plan. The present undergraduate enrolment (with some changes in teaching strategies), and the graduate student and staff complement listed in Section C. 1 are assumed.

## 1. Lecture Halls, Tutorial and Meeting Rooms

In Section E (Undergraduate Studies) it is proposed (see Recommendation E10) that 1st year and CHEM 280 classes be taught in larger sections. Under this scenario, the Department estimates the following requirements:
(a) 300-600 seat hall: $12 \mathrm{hr} /$ week
(b) 100-180 seat hall: $9 \mathrm{hr} /$ week
(c) 50-100 seat hall: $18 \mathrm{hr} /$ week
(d) 20-50 seat hall: $20 \mathrm{hr} /$ week
(e) 20-30 seat rooms:
$20 \mathrm{hr} /$ week for classes, plus additional use for tutorials, small seminars, and meetings

Given present timetabling constraints, almost all the specified lecture time would be required in morning and noon slots.

Adequate access must be guaranteed to a high-quality lecture hall, with chemical demonstration facilities, seating 300-600 students (a above). A hall of this sort would presumably be under University control, and its use shared with other departments. It might be part of the Chemistry complex (which would be convenient), or it might be located elsewhere (perhaps as part of a multi-hall classroom complex). The best location would depend on University plans for providing large halls, and on whether such a large facility might compromise the provision of other needed facilities in the limited space available in the Chemistry complex.

Requirements (b) - (e) above could be met by a lecture theatre holding up to 180 students (a renovated and extended FG15 or a new theatre in a renovated Gordon Hall), one 75 -seat and one 50 -seat hall (of higher quality than GA 20 and GA30), and at least three small, flexible classrooms.

Two drop-in resource centres for large classes (one each for 1st and 2nd year), and a 50 -computer facility for computing classes and computer-aided instruction are also needed

## 2. Undergraduate laboratories

These should be grouped together on the lower floors of Frost. Prep rooms, technical support facilities, and the laboratory coordinator's office should be nearby.

Present timetable constraints prevent morning use of all but 1st year laboratories (which are currently used in all 5 morning and 5 afternoon slots). A more flexible timetable might reduce the total space needed, e.g. having some evening lab sessions. It is assumed that CHEM 280 students will continue to spend half their lab time in tutorials, that CHEM 381 might have to operate two 2-day lab sections instead of a single 2-day session, and that the 1st year lab requirement would not be reduced by "streaming" (discussed in Part I of Section E) or diversion of some lab time to tutorials on a regular basis. The Department estimates the following requirements:
(f) five 1st yr labs ( $5 \times 32$ students, 10 times/week)
(g) four analytical/physical labs ( $50+40$ students, 3 or 4 times/week) Much of this space is required for permanent experimental setups. To be used by 3rd as well as 2nd year.
(h) two 2nd year organic labs ( $2 \times 32$ students 5 times/week)
(i) three labs for inorganic and 3rd year organic classes (60 students, 4-5 times/week)
(j) one undergraduate instrument room

In the above a "lab" is space equivalent to one of the existing Frost laboratories plus associated balance room (approximately $160 \mathrm{~m}^{2}$ ). The total area required is $(15 \times 160)=$ $2400 \mathrm{~m}^{2}$ plus associated support facilities. Undergraduate labs currently occupy $2474 \mathrm{~m}^{2}$ , and the COU entitlement is $3375 \mathrm{~m}^{2}$. If only the present laboratories on the south side of Frost were used, undergraduate labs would fill almost all the lower four floors. With imaginative use of the narrower north side space it might be possible to house the undergraduate laboratories (plus some stores facilities?) on three floors, with research space above. Renovations now underway will provide some of the necessary fumehood capacity on the top three floors.

## 3. Research Laboratories and Associated Office Space

These currently occupy $3412 \mathrm{~m}^{2}$, while the COU guidelines specify $3895 \mathrm{~m}^{2}$. The Bader Chair and any planned increase in research activity would raise our actual requirement and our COU entitlement. The number and size of laboratories of each given type (synthetic, specialized instrumentation, shared instrumentation, theoretical labs, etc) will have to be determined later by the proposed Physical Space Committee (Recommendation C4) in consultation with the Staffing Committee and individual researchers.

Ancillary operations, such as the Analytical Services Unit, may also be allocated space but such considerations lie beyond the scope of a plan for academic development.

## 4. Storerooms

Expanded and centralized facilities, including an improved loading ramp and solvent storage facilities, are required as described in Section III.

## 5. Technical Shops

Well designed workshops are needed as follows. They should be located close to each other and to the instruments and laboratories they service.
(k) Glassblowing Shop (university-wide facility). Improved ventilation and temperature control, possible provision for a future apprentice.
(I) Electronics Shop (including facilities for the computer network and its manager). Increase in space required.
(m) Minor Repair and Maintenance (for routine equipment maintenance and low-tolerance machine shop work).
(n) Machine Shop (for high-tolerance work). The proposed Technical Resources Committee (Recommendation D1) will explore the establishment of a shared university-wide facility, not necessarily located in the Chemistry complex. If the shop remains here it needs relocation and major improvements. Improved ventilation and separate rooms for machining, welding, carpentry, painting, etc. must be provided.

## 6. Administrative Offices

These should be centrally located (ideally in the present library space) and include: 3 private offices (for the head, administrative assistant, administrative secretary and confidential files; a shared office/reception area for 3 secretaries; space for photocopying and mail distribution. Offices for the undergraduate and graduate chairs might be located in the same central area. Adequate office space must also be provided (elsewhere) for the stores staff.

## 7. Faculty and Other Offices

Private offices are needed for:
(0) 26 regular faculty (under hiring scenario 1 in Section B)
(p) 8 adjuncts, visitors, contingencies (such as a temporarily expanded faculty complement due to bridging)
(q) 1 laboratory coordinator
(r) 1 instrument coordinator

A large office, or perhaps two, (with space for three or four desks each) should be provided for shared use by retired faculty who are still active in the Department. Office space should also be provided for the undergraduate and graduate student societies.

## 8. Other Space

A reading/computer/study room, a lounge, and an entrance foyer and display area are required as described in Section C.III.

Recommendation C2. The University should commission and fund a study (master plan) to begin before the end of 1995 and to be carried out by appropriate professionals in consultation with the Department. It would explore, assess, and estimate the cost of various ways of meeting the Department's space needs as outlined in Sections C.II - C.V above. In particular, the scenario of Section C.IV should be given careful attention. Any necessary facilities to be located outside the Chemistry complex (eg adequate access to a large lecture theatre, central machine shop) should be included in the study. [Head, Faculty of Arts \& Science, Campus Planning, Vice-Principal (Finance and Operations)]

Recommendation C3. In the light of the study above, the Department, together with University officers and professional advisors, should develop detailed specifications (construction, renovation, and furnishing) for the necessary high quality physical space. University approval and the necessary capital funding should be aggressively sought and the project begun. [Physical Space Committee, Campus Planning, Vice Principal (Finance \& Operations)]

An independent consultant should be hired to monitor the work of the architects and contractors. Special attention must be given to arrangements for carrying on the work of the Department during construction and renovation.

## VI. POLICIES FOR MANAGEMENT AND ALLOCATION OF SPACE

Careful, detailed planning by a small group representative of the Department will be needed to implement Recommendations C2 and C3. Special attention must be given to interim arrangements during construction and renovation.

Continuing attention to the allocation and management of available space will be needed before, during, and after construction. Among the issues to be addressed will be the space needs of faculty seconded to administrative positions and their replacements, if any; of retired faculty who are still active in research or teaching; and of above-complement faculty who may be temporarily on board because of bridged appointments. Undergraduate space must be protected against encroachment by research facilities. Management concerns include building security, maintenance, and minor renovations in response to changing needs.

Competing demands for space must be resolved in a manner which efficiently promotes the Department's objectives, which takes into account health and safety concerns, which promotes the efficient and convenient location of different types of facilities, and which treats all users in an equitable way. In order to accommodate changing priorities and growing and shrinking research groups and fields of activity, flexibility in the use of space must be maximized.

Recommendation C4. A standing Committee for Physical Space should be appointed by the Head. Its initial mandate would be to plan new facilities as outlined in

Recommendations C2 and C3, and to plan for the orderly and efficient continuation of departmental activities during building and renovation. It would also have continuing responsibilities to establish and publish clear policies for the management and allocation of space, and to advise the Head on the allocation of space, management of the physical facilities, and appropriate renovations and maintenance. [Head]

Committee membership might be: three faculty drawn from different sub-disciplines (one as chair), the Head, the Administrative Officer, one member of the technical staff, one graduate and one undergraduate student. Once the building project is complete, the membership might be reduced.

Recommendation C5. Laboratories and instrument rooms should be regarded as "common" facilities, within which space may be allocated to individual classes or research groups, rather than being "owned" by a particular course or research group. (Exceptions would apply to rooms housing particularly delicate or hazardous equipment.) [Physical Space Committee, Head]

## Section D

## TECHNICAL RESOURCES

## I. DEPARTMENTAL INSTRUMENTATION

Departmental instrumentation facilities include three major instrument facilities (NMR spectroscopy, mass spectrometry and X-ray crystallography), a teaching instrument room, a computer cluster, dedicated teaching instrumentation located in undergraduate teaching laboratories, and dedicated research instrumentation located in research laboratories. The NMR facility is used both for teaching and research and is managed by a B.Sc.-level coordinator on a part-time basis. Most graduate students and a limited number of 4th year undergraduate students making use of NMR spectroscopy are trained by the NMR coordinator as "hands-on" operators. The mass spectrometry facility is used primarily for research. It is operated by a technician on a part-time basis and by a small number of graduate students and postdoctoral fellows. The X-ray crystallography facility has been operated by a crystallographer on a part-time basis; the term of appointment of the previous operator expired at the end of September, 1995. The teaching instrument room located in the basement of Gordon Hall houses FT-IR and UV-vis spectrophotometers, capillary GC and GC/MS systems and is under the supervision of a full-time technician. It is used primarily for teaching and to a lesser extent for research. The computer cluster is used by undergraduates for general purpose computing and for several courses that have a computational component included in them. The cluster is controlled by a network server, and is administered and maintained by the Electronics Shop. Instruments located in undergraduate teaching laboratories are under the supervision of laboratory technicians.

In the current climate of shrinking resources, it is becoming increasingly important to maximize the return on our instrumentation dollars. The Departmental research and teaching instruments and the technical staff responsible for their operation must be used to their full potential under the supervision of full-time professional staff members. In order to fulfill the added instrumentation needs of a Bader Chair and other forthcoming new faculty appointments and to further upgrade our laboratory courses, careful planning for the acquisition of new instrumentation will be crucial. In order to achieve these goals and to improve oversight by facuity and staff on departmental instrumentation and other technical resources (vide infra), a departmental technical resources committee should be created.

Recommendation D1. A Technical Resources Committee (TRC) should be created. The committee should consist of faculty members, the undergraduate lab coordinator (ex officio), the research instrumentation manager (ex officio), the administrative assistant, a technical staff representative and a graduate student. The committee would be chaired by one of the faculty members. Committee members should be appointed by the Head so as to represent interests across the spectrum of instrumentation. [Head]

The committee would supervise the management of all departmental instrumentation, stores and shops, and coordinate short- and long-term planning with respect to future technical resources needs. The committee would also act as liaison between technical staff and the Head. The first task of the TRC would be to initiate the search for the instrumentation manager specified in Recommendation B3. This hiring is considered to be of prime importance and will be carried out under any of the budgetary scenarios considered in this Plan. The undergraduate laboratory coordinator (Recommendation B2) would fulfill a similar role with respect to teaching instrumentation.

The Department informally maintains a policy of shared instrumentation that is consistent with NSERC guidelines. According to this policy, research groups are encouraged to make any "non-specialized" instrumentation (i.e., instruments not dedicated to a task unique to the research group using it) available for use by other members of the Department. However, the existence of shared instrumentation in the Department is poorly documented, which makes it difficult for new faculty members and graduate students to take full advantage of the Department's instrumentation capabilities. Access to shared instrumentation is often cumbersome due to the lack of dedicated shared instrument rooms strategically located to serve more than one research group with similar instrumentation needs. Although it may not be possible to accommodate everyone who needs a shared instrumentation room at this time, a temporary solution might include the use of space currently occupied by instrumentation that is deemed obsolete.

Recommendation D2. The current policy of shared research instrumentation should be strengthened, and planning of new research facilities should include the creation of shared instrumentation rooms strategically located to serve research groups with similar instrumentation needs. [Technical Resources Committee and Physical Space Committee]

Recommendation D3. The Department should undergo a complete house cleaning, and proceed in the decommissioning of instrumentation deemed obsolete to maximize the use of available space. [Technical Resources Committee, Instrument Manager]

The Department should consider contingency plans to provide some specialized, expensive instrumentation services via contracting with regional instrumentation facilities. With the recent termination of the NSERC Infrastructure Grant program, it is likely that such facilities will be actively seeking outside business.

Recommendation D4. The Department should explore the option of seeking agreements as necessary with existing or future instrumentation regional centres to provide required services to members of the Department at a reasonable cost. [Technical Resources Committee]

Of the three major instrumentation facilities in the Chemistry Department, the status of the X-ray crystallography facility is the most uncertain. The facility has recently been operated on a part-time basis by a teaching adjunct faculty member whose term of appointment expired at the end of September, 1995. For the period of June 1994 to July

1995, six Chemistry faculty members submitted a total of 24 samples for crystallographic analysis; one Geology faculty member used the facility to collect data for 4 samples. All services were provided free of charge.

In order to maintain the X-ray crystallography facility as a departmental service, it would be necessary to hire a new crystallographer and to impose a fee structure to cover part of his/her salary. The current projected demand for X-ray structure determinations in the Department for the next year ( $30-35$ compounds) makes the operation of such a facility on a full-time basis economically unfeasible, although the research requirements of future faculty hirings could alter this situation significantly. The CAD4 four-circle diffractometer currently in use is more than ten years old, and it is anticipated that a replacement will be needed in the next five years. Indications are that NSERC is unlikely to fund a major installation grant for a new X -ray diffractometer unless the facility is to be used as a regional centre producing crystal structures for a minimum of 100 compounds/year.

At present, the Chemistry X-ray crystallography facility is the only one in the Kingston area. Queen's Biochemistry Department has obtained funding for a new X-ray diffractometer as a dedicated research instrument and does not plan to operate it as a service instrument. Considering the possibility that future hirings in the Department may need X-ray crystallography as an integral part of their research, and the current need for such service in Chemistry and Geology, it would be preferable not to phase out the X-ray crystallography facility entirely.

The Department also houses a two-circle diffractometer used for powder X-ray diffraction. This instrument is much older than the CAD4, and requires hardware and software upgrades on the order of $\$ 12,000$. Because modern X-ray powder diffraction instruments are available in the Metallurgy Department at Queen's and at Kingston's Royal Military College, the upgrading of this instrument is considered of low priority.

Recommendation D5. The operation of the CAD4 X-ray diffractometer should be maintained as a part-time service facility for a period of three years, with user fees charged for each X-ray structure produced. During this period, a careful assessment of the long term future of the $X$-ray crystallography facility should be made by the Technical Resources Committee, and one of the following scenarios should be adopted. [Staffing Committee, Technical Resources Committee]
(I) A regional X -ray crystallography service facility could be created and staffed by a fulltime X-ray crystallographer, with user fees charged for each X-ray structure produced. The Department would apply for funding of a new, state-of-the-art X-ray diffractometer within the next five years. Justification for such a scenario is only possible if the current demand for X -ray service within the Department is to increase significantly over the next few years, and if prospects for outside contracts are realistic. A commitment by all faculty members to have their structures done in house is essential for this approach to succeed.
(ii) The present facilities, including the two-circle instrument for X -ray powder diffraction, could be offered as part of a start-up package for the hiring of a junior or senior faculty member with a research program requiring intensive use of X-ray diffraction. Simultaneously, the Department would seek a service agreement with one of the X-ray crystallography regional facilities (such as the one in Waterloo) to handle the needs of other members of the Department.

## II. STORES

In the present situation, the layout of the Chemistry Stores is too spread out to provide efficient services to teaching and research laboratories; receiving, laboratory supplies, acids, gas cylinders, liquid nitrogen and dry ice are located in the Frost Wing basement, solvent stores on the 2nd floor of Gordon Hall, reagent chemicals on the 1st floor of Gordon Hall and stationery supplies on the 4th floor of the Frost Wing. Inventory and billing, shipping and receiving of courier services, departmental blanket orders with principal suppliers and a petty cash account are handled by the Stores office located in FG11

Access to the stores facilities by research personnel and technical staff is limited. The supplies store and acids store are kept locked at all times and can only be accessed by the storekeeper; the solvents store is open Monday-Friday between 2:00 and 3:00 p.m. only. Faculty members do not have access to any of those facilities. The reagent chemicals store is managed by a lab technician and is open Monday-Friday during business hours; off-hours access to this store is restricted to faculty members. The stationery supplies located in the Departmental offices can only be accessed weekdays during business hours. The liquid nitrogen and dry ice supplies are accessible to researchers 24 hours a day, although the limited quantity of dry ice kept in store seldom lasts through the weekend or holiday periods. Furthermore, the Department lacks a large storage tank or liquefier facility for liquid nitrogen, which must be purchased on a weekly basis and on a very uneconomic scale.

The laboratory supplies and reagent chemicals inventory is set by the storekeeper based on the needs of undergraduate laboratories, and does not specifically address the needs of research groups in the Department. As a result, research groups must maintain their own stocks of various laboratory supplies and chemicals, which could otherwise be purchased in bulk by the Chemistry Stores at considerably reduced prices. Except for the glassblowing shop, all departmental shops are restricted from maintaining adequate stocks of parts and supplies in their respective locations. Billing is still done manually and does not allow for the preparation of detailed monthly statements, making it virtually impossible for principal investigators to plan budgets and verify the accuracy of charges. In order to address these shortcomings, the Chemistry Stores must be reorganized into centralized facilities that respond to the needs of teaching, research and shop services, with improved off-hours access to research personnel, and computerized inventory and billing procedures that facilitate budget planning and verification.

Recommendation D6. The Chemistry Stores should be reorganized into a central receiving area, a central stockroom, a fine chemicals storage facility and a small equipment storage facility. [Physical Space Committee, Technical Resources Committee]

The central stockroom should house all laboratory and stationery supplies for teaching and research. This stockroom should be open weekdays during business hour. Off-hours access to some or all of the stockroom facilities by faculty and graduate students should be made possible through the use of electronic cards to monitor access to the facilities. The stock items should include all non-chemical laboratory supplies, laboratory glassware, reagent chemicals, organic solvents, NMR solvents, acids, gas cylinders, dry ice and liquid nitrogen. The fine chemicals storage area on the 1st floor of Gordon Hall (GG15) should be relocated to a well ventilated room central to all synthetic research labs. The chemicals should be made available free of charge to all research groups, who would be encouraged to donate other recyclable fine chemicals to the facility. A small equipment storage facility should be created to store small unused equipment such as stir plates, vacuum pumps, etc. This storage facility would operate along the same guidelines as the fine chemicals storage facility.

Recommendation D7. The Department should explore the possibility of installing a large outdoor liquid nitrogen tank as a more cost-effective source of liquid nitrogen to the Department. [Physical Space Committee]

Recommendation D8. Each technical shop should be responsible for maintaining an adequate stock of parts and/or supplies, with access limited to technicians. TTechnical Resources Committee]

Recommendation D9. Within the structure of the Technical Resources Committee, an Inventory Subcommittee composed of faculty members and the chief storekeeper should be created to oversee the Chemistry Stores inventory and operations. [Technical Resources Committee, Head]

The Inventory Subcommittee would be responsible for the development of a new central stockroom inventory based on the research and teaching needs of the faculty via general consultation and for the implementation of a database for the Chemistry Stores inventory (vide infra). The Chemistry Stores inventory would be reviewed by the subcommittee on an annual basis. The committee would review current purchasing and billing methods, aiming to maximize the buying power of the Chemistry Stores.

Recommendation D10. The Chemistry Stores billing operations and inventory should be fully computerized. Itemized statements should be prepared for each principal investigator every month. [Inventory Subcommitee]

Recommendation D11. Following a department-wide inventory of all reagents and fine chemicals, a chemicals database should be created and made available on the Departmental network. [Inventory Subcommittee]

The Chemistry Stores inventory and chemicals databases should be implemented in consultation with the network manager. The chemicals database would include all reagents and fine chemicals available in the Stores and in all the research labs. A system of bar-coded labels for all stocked items and chemicals should be implemented. A computerized billing process using the bar-coded labeling system would allow for detailed monthly statements to be prepared for each investigator. Upon completion of the initial department-wide inventory, the chemicals database would be kept up to date by entering and labeling new purchases of chemicals upon delivery at the central receiving area, and by collecting and returning bar-coded labels of used-up chemicals. Such a database would minimize duplication in ordering of certain chemicals that may be needed only in very small amounts and would provide the safety officer with readily available information on the nature, quantities and location of any hazardous chemicals stored in the Department. It is recommended that the Department seek the help of a consulting firm and/or other chemistry departments to develop a system tailored to our needs.

## III. SHOPS

The Departmental shop services consist of Electronics, Instruments, Glassblowing and Machine shops. The Glassblowing and Electronics shops are located on the 3rd and 4th floors of the Frost Wing, respectively, the Instruments shop in the basement of Gordon Hall and the Machine shop in the basement of the Frost Wing. This scattering of shops hinders bringing together complementary expertises to solve difficult problems, and is highly inefficient. At present, the Chemistry Department shops provide an adequate level of support for teaching and research activities taking place in the Department, although it is recognized that upgrading of some (if not all) of the shop facilities will be necessary to maintain the current level of services as well as to provide additional services that may be required by future faculty hirings.

Recommendation D12. In the design of new and renovated space for the Chemistry Department, shop facilities should be centralized (implication for Space \& Renovations Committee). [Physical Space Committee]

Recommendation D13. A detailed review of the Departmental shops, including a review of all shop equipment and infrastructure, should be carried out by the TRC. The retirement profile of shop personnel should also be examined, and plans put in place to ensure the continuity of shop operations via possible bridging of these positions. If necessary, consideration should be given to consolidating certain shop facilities with those of other departments to create campus-wide facilities that can provide work of a higher level of sophistication and tolerance at a reasonable cost to the Department. [Physical Space Committee, Staffing Committee]

## Section E

## UNDERGRADUATE STUDIES

## PREAMBLE

The Department of Chemistry is the source of a diverse group of undergraduate programs. At present, in the Faculty of Arts \& Science, degree programs in Honours Chemistry (SSP, MAJ, MED, Chemical Physics (CHPH), General Chemistry (GEN) and in Environmental Science-Chemistry (ENSC(C)) are offered; in addition multidisciplinary programs with Biology, Computing and Information Science (CISC), Geography, Geological Sciences, Mathematics, and Physics are available. In the Faculty of Applied Science, the Engineering Chemistry program is offered, with Materials, Environment, and Process options available. This combination of course offerings in Honours Chemistry, in Environmental Science, and in Engineering is unique in Canada. Numbers for recent and expected graduates from chemistry programs are summarized below.

TABLE 1

|  | SSP | MAJ | MED | ENSC(C) | CHPH | ENGCH | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $' 92$ | 4 | 21 | 6 |  | 1 | 27 | 59 |
| $' 93$ | 7 | 24 | 6 |  | 0 | 15 | 52 |
| $' 94$ | 5 | 10 | 6 |  | 3 | 21 | 45 |
| $' 95$ | 7 | 11 | 13 | 10 | 0 | 17 | 58 |
| 96 | 8 | 16 | 12 | 18 | 0 | 30 | 84 |
| 97 | 5 | 24 | 14 | 6 | 1 | 20 | 70 |

In addition to the undergraduate chemistry programs offered, the Department has a major responsibility for providing 'service' teaching for a wide variety of degree programs in other departments. This service teaching can be categorized as follows:

1. First and second year courses - all first year Applied Science students (approximatley 450), a large majority of first year Science students (approximately 800) and many second year Science students (up to approximately 500) take these courses;
2. Concurrent service courses - several courses are offered concurrently with courses in chemistry programs (e.g. CHEM 347/348 and CHEM 261/267);
3. Exclusively service courses - CHEM 387 is the only such course.

In summary, the Department of Chemistry offers a wide variety of programs to students in chemistry, environmental science and applied science; it provides service to a diverse group of students in programs that span the Biological and Life Sciences, the Physical Sciences and the Applied Sciences. One of the biggest challenges that will continue to confront the Department of Chemistry will be the problem of delivering a core
curriculum in chemistry to three significantly different degree programs - Honours Chemistry, Environmental Science/Chemistry and Engineering Chemistry. A compromise between the individual curriculum requirements of these programs and the rationalisation requirements of the Department as a whole will have to be achieved.

The objectives of the chemistry programs are:

- to provide a high-quality undergraduate education in chemical science
- to produce engineers who command an unusually strong base in chemical theory and practice
- to prepare students for graduate education, professional schools and careers in industry, government and teaching
- to provide a positive learning environment for students in chemical science


## I. CURRICULUM DEVELOPMENT AND PROGRAM REVIEWS

Traditional subdisciplines of chemistry include analytical, inorganic, organic, physical and theoretical chemistry, and much of our curriculum is organized along these lines; these areas will continue to be the core of chemistry programs, and students can readily pursue enrichment of their degree programs in these areas through easily identified elective courses in the subdisciplines. Macromolecular chemistry, a subdiscipline of considerable significance, does not have significant visibility in the curriculum at present. Multidisciplinary programs with biology, computing science, geography, geology, mathematics and physics are also available. Recently a number of non-traditional areas of chemistry have gained prominence as part of interdisciplinary fields; these areas include computational chemistry, biological chemistry, materials science and environmental science. A degree program in Arts \& Science and a program option in Applied Science are available for students interested in the environmental science/chemistry area, and a program option for materials science is available in Applied Science. Noticeably absent from the degree programs in chemistry are (i) a program option (both Faculties) that addresses the interface between chemistry and biochemistry, and (ii) guidelines for the selection of courses to provide enrichment in either computational chemistry (both Faculties) or materials science (Arts and Science). It must be emphasized that the following recommendation is based upon the existing chemistry core in the Arts \& Science and Applied Science programs, and would draw upon existing elective courses in chemistry and courses in cognate departments; no new courses would be required for implementation.

Recommendation E1. Program options should be developed that address (i) the interface between chemistry and biochemistry (both Faculties), ii) computational chemistry (both Faculties) and iii) materials science (Arts \& Science); such options should be based upon existing courses in chemistry and cognate departments. [Curriculum Committees]

The table on page 1 shows that fewer students (Arts \& Science) choose the SSP than the Major program. This is not surprising since the SSP program requires more courses in chemistry and supporting subjects than the Major program, but it is a matter of concern that many of the better students, including those who are intending to study for higher degrees and follow research careers, choose the Major rather than SSP program despite the apparent prestige of the latter. The reason seems to be that the SSP program is seen to be too restrictive, and good students with broad interests are not willing to assume unnecessary constraints.

The Major program specifies 9 courses in chemistry and 3 supporting courses, while the SSP program specifies 11.5 courses in chemistry and 3.5 supporting courses. The calendar advises students intending graduate studies in chemistry to take at least 10 courses in chemistry, and those in the Major program often take more than the minimum number of chemistry courses to satisfy this recommendation.

Recommendation E2. The Arts \& Science Curriculum Committee should review the SSP and the MAJ programs with respect to the breadth and depth of the requirements for these degrees.

At present studies abroad are not a significant aspect of the chemistry programs; several students have, however, made use of existing exchange programs with European universities.

External assessment of programs is important for two reasons; the first is for comparison of our programs with those offered by other institutions, while the second is for the licensing of graduates from a professional program (Professional Engineers). Additionally, internal review of academic programs is expected ('A Plan for Development in the Faculty of Arts and Science'). With respect to review of chemistry programs in Arts \& Science, the situation is straightforward; no external review by the Canadian Society for Chemistry (C.S.C.) has taken place recently (if at all). External review is important for comparison of these programs to national standards.

Recommendation E3. The Head of the Department of Chemistry should request a program review for accreditation of the Arts \& Science program(s) and of the Engineering Chemistry program by the Canadian Society for Chemistry. [Head]

Following C.S.C. review, the curriculum of the various chemistry programs should be internally reviewed with respect to any C.S.C. recommendations.

The situation with respect to the Engineering Chemistry program is more complex. This program is informally reviewed every year by an Advisory Council comprised of three individuals from industry/government; it provides valuable advice on the content of the program. Additionally this program has been reviewed several times over the past 15 years by the Canadian Engineering Accreditation Board (CEAB) with respect to their requirements for $P$. Eng. accreditation; the fact that this program is unique in Canada has
generated substantial discussion over the appropriate standards for review. At present the program has been rated as acceptable and the curriculum content has been praised. Two issues however have developed, as a consequence of this series of reviews by CEAB, which have a significant impact on the resources of the Chemistry Department; these are as follows:

1. Basic Science (CHEM) courses with Engineering Science/Design content: until about ten years ago several courses in physical (CHEM 240), analytical (CHEM 270), inorganic (CHEM 362) and organic (CHEM 381) chemistry served both the Arts \& Science and Applied Science chemistry programs. In response to CEAB concerns over a lack of engineering content in these courses, several new courses (CHEM 244/248/272/368/388) were introduced as basic science courses with some engineering science/design content. Additional curriculum content from Chemical Engineering was also included.
2. Professional Engineering (P.Eng.) status of faculty: more recently concern has been expressed by CEAB over the percentage of P.Eng. faculty teaching courses with engineering science/design content; this will lead to a further review of the program in the near future. This is a staffing, rather than curriculum, issue.

With respect to the new courses mentioned above, some further comments are warranted:
a) CHEM 368 is offered concurrently with CHEM 362 due to staffing limitations in inorganic chemistry.
b) CHEM 272 is offered as a Spring Term short course (enrollment >100) while CHEM 271 is a Fall Term course (enrollment $>100$ ).
c) CHEM 248(348) is offered concurrently with CHEM 247(347) with a large enrollment (>100)
d) CHEM 244 (enroliment approximately 20) could be rationalized with CHEM 240 (enrollment >100) only if CHEM 240 were split into two one-term courses and the curriculum content harmonized
e) CHEM 388 (enrollment approximately 21) could be rationalized with CHEM 381 (enrollment approximately 73 ) but would require a timetable adjustment (F/W), and a significant curriculum adjustment (3-3-0 vs. 2-6-0) and harmonization
(f) CHEM 342 and 343 are offered concurrently

It should be emphasized that any rationalization of these course offerings could be viewed as being inconsistent with previous CEAB reviews and may have a negative impact on future reviews. Finally, as a historical point, CHEM 288 has been in existence since the late 60's as a course for engineers, and for many years had a large enrollment (60-75) of chemical engineers. It is difficult to anticipate enrollment trends for this course since it is heavily dependent on chemical engineering enrollment trends.

Given the history of commitment shown by the Department to this program, the following recommendation is made.

Recommendation E4. The Department of Chemistry should continue its commitment to the Engineering Chemistry program by providing a curriculum that is of an appropriate C.E.A.B. standard. [Curriculum Committees]

The lab component of many courses in chemistry will continue to be vulnerable to the influences of diminishing resources. Already in some courses (CHEM 116, 120, 121 and 280) there has been the replacement of a portion of the lab component of the curriculum with tutorials. This has been a response to increases in enrollment except for 116 where it was a pedagogical decision. As with other aspects of our teaching, 1st and 2nd year courses, with their large enrollments, will continue to be a major commitment of our resources; consequently the resources going into these lab programs should be organized and utilized as efficiently as possible. The proposed Laboratory Coordinator (Recommendation B2) for 1st and 2nd year courses, will have responsibility for preparing lab manuals, designing experiments, instructing teaching assistants (TAs) and optimizing the effectiveness of the technical support staff.

If we are to continue to offer a high-quality education in chemical science, then every effort must be made to ensure that those students who graduate from a chemistry program are given the maximum opportunity for practical laboratory experience. The Canadian Society for Chemistry has set a minimum of 400 hours of laboratory work as one of the conditions for program accreditation; the Department should make every effort to ensure that our degree programs in chemistry have a lab component that is well above the minimum. In an environment of increasing enrollment and decreasing resources, the lab component of 1st and 2nd year large-enrollment courses will become increasingly vulnerable to reductions or replacement by tutorials. In order to maintain the quality of chemistry programs, it may be necessary to implement more laboratory streaming of students intending a chemistry concentration. Some streaming is already done to a limited extent (e.g. CHEM 112 and 116, or CHEM 240/241) but may become necessary in other courses. For example, CHEM 280 might be separated into a Chem/Biochem/Ensc(C) stream with a full lab component and a service stream with a substantially reduced lab component. The following recommendation is made primarily as a response to the possibility of substantially diminished resources:

Recommendation E5. Selective streaming of chemistry students should be undertaken where necessary to maintain or improve the content and coherence of the chemistry programs, particularly with respect to laboratory instruction. [Curriculum Committees]

Every effort would be made to avoid implementation of Recommendation E5. Laboratory instruction is an important component of any chemistry course, regardless of the prominence of chemistry in a student's degree program.

The importance of both technical support staff and teaching assistants with respect to the operation of lab programs is particularly noted; any reductions in this support through the effects of decreasing financial resources would have serious consequences and might
further necessitate the streaming of students to optimize laboratory instruction for those students whose need is greatest.

The offering of courses in spring/summer sessions has not been a common occurrence for this department. Recent experience (apart from CHEM 272) has been with CHEM 280; many of the students enrolled came from other universities rather than from Queen's. Consequently this type of offering should be viewed more as an opportunity to generate additional revenue through increased instruction rather than as an opportunity to reduce enrollment pressures on fall/winter term courses. The main impediment to offering such courses has been a revenue sharing issue. These courses are usually run through the Department of Continuing Education which pays a stipend to the instructor and normally provides up to 2 hour/student of TA time (at $\$ 23$ per hour). This TA allocation would cover, for example, about half the cost of the lab component of CHEM 280 (excluding the cost of equipment and chemicals, and assuming a full lab component of instruction is given). Consequently, although a spring/summer session course of this type might generate significant revenue for the University, it would be at significant cost to the Department.

Recommendation E6. Spring/summer session offerings of courses with a lab component should only be considered if a more equitable cost recovery plan can be instituted. [Curriculum Committee', Head, Faculty]

The Academic Development Plan for the Faculty of Arts \& Science refers to the review of general requirements for literacy, numeracy and computer usage in its programs. This may be interpreted to mean that, at some time in the future, there may be an increased demand for science courses which can be taken be non-science students. A course of this type in chemistry, directed towards societal issues of interest to students in economics, political science and the like, may well be useful; however its implementation should be considered only if resources permit, and if instructors with significant interest in this area are available.

## II. PROGRAM ENROLLMENT

Program enrollment is not, at this time, under the direct control of the Department but rather is a consequence of (i) Faculty admissions to either 1st year Applied Science or 1 st year Science, and ii) Faculty policies of flexibility with respect to choice of a degree program. Recent enrollment trends for the respective faculties have shown increases for both Applied Science and the Science portion of Arts \& Science. There is one factor which needs serious consideration, however: all chemistry programs (except MED CHEM) require an undergraduate research project (CHEM 417/423/497/498/499). If the combined enrollment in 4th year programs becomes sufficiently large, can every faculty member in this Department supervise three or four thesis projects a year? Since barriers to either admission or completion of the 4th year of a program are undesirable, the following recommendation is made.

Recommendation E7. If necessitated by increased program enrollments, the requirement for undergraduate research projects in chemistry degree programs should be reviewed and, if need be, altered. [Curriculum Committees]

Enrollment limits for specific courses do not formally exist for most courses in Chemistry. CHEM 210, a new course in 1995/6, will have a published enrollment limit of 48 students due to space limitations in the computer cluster. Additionally, the lecture location for CHEM 116 has traditionally been FG15 in order to familiarize these students with the chemistry complex; this restricts the class size to the seating capacity of FG15 and consequently an enrollment limit has been imposed.

In the same way that space in the computer cluster sets an enrollment limit for CHEM 210, it may well be for many other courses in this department that undergraduate lab space may constitute the effective enrollment limit for a specific course. For example, the labs on the second floor of Gordon Hall have a maximum capacity of about 80 students and CHEM 381 has been operating close to this limit for the past several years. Additionally the limited availability of equipment and/or technical support staff may also be constraining factors with respect to course enrollments.

Recommendation E8. For courses with a lab component, course enrollment limitations based upon timetabling considerations and the availability of lab space, equipment and technical support should be set, unless the course curriculum is modified with respect to the lab component of the course or streaming is adopted to reduce the demand on lab space and other resources. [Curriculum Committees]

## III. TEACHING LOADS

In addition to increases in student enrollment in recent years, the prospect of declining resources, including the number of faculty positions, is expected to have a significant impact on our teaching and may lead to increased teaching loads, selective paring of courses, combined graduate/undergraduate courses and/or other measures. The Heyding-Brown-Gordon method has recently been used to assess teaching load; this method is based upon a weighting factor that includes the rolling average enrollment in addition to contact hours (lecture/lab/tutorial) per week in a given course, or section of a course. Full details of this method are described in the "Self-Review"[1].

Recommendation E9. The Heyding-Brown-Gordon method, or modification thereof, should be used for the purpose of assessing teaching loads associated with lecture courses offered in the Department of Chemistry.

Using this method, the total teaching load by weight anticipated for 1995/96 is approximately 98 HBG units. If the Department continues to deliver courses in roughly the same manner as is done now, then Table 2 below shows the effect of reduced numbers
of faculty on teaching loads using the current faculty complement and the post-bridging faculty complements of scenarios I, II, III, IV ( $0,1,2,3$ lost positions) introduced in Section B on Staffing (last row of Table 3 in Section B). The teaching loads are based upon the use of regular full-time faculty (or their replacements) for the full teaching load of the Department.

TABLE 2

|  | Scenario I | Scenario II | Scenario III | Scenario <br> IV |
| :--- | :---: | :---: | :---: | :---: |
| Full-Time Equivalent Faculty ( $\ddagger$ ) <br> (No. of Full-Time Equivalent <br> Sabbaticals) (*) | 25.5 <br> $(2)$ | 24.5 <br> $(2)$ | 23.5 <br> $(2)$ | 22.5 <br> $(2)$ |
| Nominal Teaching Load (HBG units) | $98 / 25.5$ <br> $=3.8$ | $98 / 24.5$ <br> $=4.0$ | $98 / 23.5$ <br> $=4.2$ | $98 / 22.5$ <br> $=4.4$ |
| Actual Teaching Load (HBG units) | $98 / 23.5$ <br> $=4.2$ | $98 / 22.5$ <br> $=4.4$ | $98 / 21.5$ <br> $=4.6$ | $98 / 20.5$ <br> $=4.8$ |
| Reduction in HBG Units to Achieve <br> Target Nominal Load of, e.g., 3.6 <br> HBG | 6.2 | 9.8 | 13.4 | 17.0 |

( $\ddagger$ ) includes Lab Coordinator and Instrument Manager as one full-time equivalent for teaching purposes. (*) estimate; based on three faculty on sabbatical leave in given year, with two on half-sabbatical.

At present over 60\% of the Department's teaching load is in 1st and 2nd year; first year and 2 nd year organic teaching are the largest groups. Currently most of the 1 st and 2nd year teaching load is carried out by adjuncts and by full-time faculty who will retire within the next 10 years; new faculty coming in over the next 10 years will expect reduced teaching loads initially.

With respect to handling the total departmental teaching load in a situation of declining resources, several scenarios can be envisaged:

1. Maintain the present total teaching load with faculty expected to assume a greater average teaching load (the current average actual teaching load is 3.9 HBG for fulltime faculty not on leave)
2. Maintain the present total teaching load with an increased use of adjuncts for teaching 1 st and possibly 2 nd year courses (currently over $20 \%$ of the teaching load is carried out by adjuncts with the majority of that teaching occurring in 1st and 2nd year courses) [NB: This is contrary to Recommendation B1]
3. Reduce the overall amount of service teaching (do programs in Biochemistry, Biology, Environmental Science, Geology, Life Sciences, Physics and Applied Science need as much chemistry as is currently required?)
4. Use 'alternative instructional technologies' to deliver large-enrollment courses
5. Set a nominal teaching load as a target (e.g. 3.6 as in Table 2 ) and compensate by a combination of:
(a) selective merging and/or deletion of upper year/graduate courses, and
(b) substantial reduction in the number of sections in 1 st year and in 2nd year organic chemistry.

No attempt will be made to assess the lengthy arguments for and against these various scenarios. The following recommendation is made after much discussion:

Recommendation E10. The Department of Chemistry should aggressively pursue the construction of a modern, well-equipped, large-capacity (>500) lecture theatre so that CHEM 120, 121 and 280 may each be taught in one lecture section and CHEM 112 be taught in two lecture sections; in the normal instance instruction will be by regular full-time faculty. The necessary infrastructure to support these large classes should be developed, and the role of a facility such as the Resource Centre examined. [Physical Space Committee, Campus Planning, Curriculum Committees]

If this recommendation is implemented in its entirety, the estimated reduction in teaching load would be about 19 HBG units. The actual reduction achieved would depend to some extent on the nature of the infrastructure developed to support these large enrollment courses.

## IV. LEARNING ENVIRONMENT

Evaluation of student satisfaction with respect to chemistry programs and the learning environment is difficult due to a dirth of information. Recently the results of an exit poll (conducted by the Registrar's Office on students graduating in the spring of 1994) have become available. While there are a number of factors (timing, structure of the questions, first poll of this type, number of respondents) which may influence the validity/interpretation of the results, the continued acquisition of information of this type is nevertheless very useful. Based upon this poll, it would appear that in some areas, such as problem solving, mathematical and computing skills, our programs are successful; however in other areas the results are less than encouraging. Specifically there are two general areas which need to be addressed:

1. communications skills and societal/ethical issues, and
2. providing a positive learning environment.

Recently the Engineering Chemistry curriculum has been modified to include CHEM 301 and 400, both Professional Practice courses which address this first area. In the Arts \& Science programs, however, there has been no conscious effort with respect to the overall curriculum structure to address or evaluate this first area. Furthermore this is an area recognized as important for C.S.C. program accreditation ("The Department shall demonstrate to the committee the ways in which their program requires a
demonstration of both verbal and written communications skills."). As a first step to remedy this situation, the following recommendation is made.

Recommendation E11. The course information sheets currently compiled for each course offered in the Chemistry Department should be expanded to include information on communication skills and societal/ethical issues examined in the course; curriculum content in this area should be reviewed by the Undergraduate Curriculum Committees following external C.S.C. review of all chemistry programs.

The learning environment originates with the relationship established between students and instructors in the lecture room; a lack of interest in a student's learning or in class participation does not contribute to a positive learning environment. The relationship is further developed through accessibility of the instructor to students outside the lecture room. In this regard a stated department policy on posted office hours for all instructors would be beneficial; the use of e-mail discussion groups should also be encouraged. Support of students outside the student/teacher situation is also important for the development of a sense of belonging within the University community. At present students have access to academic advisors and program Chairs for academic counseling. In addition, the Engineering Chemistry program appoints "year advisors" for students in a specific graduating class. A year advisor is assigned to students in the fall of their second year and stays with that group of students until graduation; the advisor usually meets informally with the students once or twice a term to discuss any problems that may have developed with any aspects of the program and to serve as an informal link with the Department.

Recommendation E12. A year advisor program should be established for students entering a degree program in chemistry (SSP, MAJ, MED) in the Faculty of Arts \& Science; year advisors should be assigned to groups of students at the beginning of their second year. [Curriculum Committee]

Appraisal of faculty teaching performance by student evaluations is an important aspect of both the learning environment (for students) and career development (for faculty). The following general points should be considered with respect to student evaluations:

1. They can be administered by students, departments and/or the University
2. They should include numerical ratings which allow relative comparison of an individual with a departmental average
3. The ownership of the evaluations should be determined
4. Raw, unedited results must be available to both the individual faculty member and the Head of the Department if the results are used for performance appraisal
5. If evaluations are used for faculty performance appraisal in February/March, then appraisals for the previous calendar year should be used
6. The questionnaire used for the evaluation should be concise
7. The administration of the evaluations should be consistent from year-to-year and should cover all courses in the Department

At present, student evaluations are carried out exclusively by the Department Students Committee (D.S.C.). A University administered system is currently being evaluated. In some regards, D.S.C.-based evaluations are optimum since they are based upon a questionnaire devised specifically for the Department but they do suffer, however, from inconsistent administration from year to year. To improve this situation the following recommendation is made.

Recommendation E13. At the beginning of each academic year, the Head of the Department should meet with the Chair of Undergraduate Studies (Arts \& Science), the Chair of Undergraduate Studies (Applied Science), a representative of the Chemistry D.S.C. and a representative of the Engineering Chemistry Executive to discuss matters associated with faculty and course appraisals for the coming academic year.

## Section F GRADUATE STUDIES AND RESEARCH

## I. RESEARCH

## 1. Faculty Renewal

The Department of Chemistry currently has 26 faculty members ${ }^{1}$ involved in teaching and/or research in the areas of analytical, inorganic, organic, physical, polymer, and theoretical chemistry [1]. There will twelve faculty retiring within the next ten years (1995-2005), including six physical chemists, and one member of faculty (Fortier) has been seconded for administrative duties for a second five-year term.

The Department is at present carrying out a search for an inorganic chemist, with an environmental chemistry position to be advertised in the fall of 1995. In addition, the Bader Chair in Organic Chemistry will hopefully be filled within the next two years. In replacing the twelve retirements, it is recognized that a budget reduction on the order of $10 \%$ could cost the Department up to three positions, and that hiring faculty at a more senior level and the installations of a laboratory coordinator and an instrumentation manager could result in the effective loss of one or two additional positions. We are, however, a department which is responsible for an already heavy service teaching load, which has an improving research record, and which has been underbridged in the past. The Department is therefore justified in seeking faculty renewal on a one for one basis.

Recommendation F1. The Department of Chemistry should replace retiring faculty on a one for one (or equivalent) basis, with new faculty who are on par with the best hired at other Canadian universities [Staffing Committee].

Faculty renewal in the past has been achieved by advertising for positions in particular traditional subdisciplines. With an increased blurring of the subdiscipline boundaries and a move towards interdisciplinary studies and research, it may be more appropriate to consider other categorizations of research for the purposes of faculty renewal. Attempts have been made to identify those areas of Chemistry, and interdisciplinary areas involving Chemistry that will be emerging in the next ten years. In addition to suggestions from faculty members (about half the Department responded to the Research Questionaire), several recently published prognostications [4-9] were also consulted. The consensus was that the following three areas of chemical research would be very active and well funded during the next ten years: materials science, biological chemistry, and environmental chemistry. The Department currently has faculty members involved in research in each of these areas, providing a base upon which research strength may be built.

[^9]These fields would allow for hiring in all of the traditional subdisciplines, to address undergraduate teaching needs. The materials science field, for example, could attract inorganic, organic, physical and polymer chemists, and would be especially suitable for the hiring of a faculty member with P. Eng. credentials. The other two fields would similarly provide the opportunity for hiring in a number of subdisciplines. The identification of these three areas of research in no way precludes the hiring of new faculty in other areas of chemical research. The faculty hirings will also have to be consistent with teaching and program development needs. These three fields, however, represent the future directions of undergraduate programs in the Department of Chemistry, such as the Environmental Science program and program options outlined in Recommendation E1 in the Undergraduate Studies section.

Recommendation F2. The Department of Chemistry should attempt, through the process of faculty renewal, to continue to develop research strength in the areas of Materials Science, Biological Chemistry, and Environmental Chemistry [Staffing Committee].

## 2. Research Funding

The total funding of research in the Department of Chemistry has been increasing during the past ten years and has been in the 2-3 million dollar range for each of the last three years. In addition to NSERC and MRC Research grants, faculty have received funding from agencies of the Provincial, Federal, and U.S. Governments, as well as from industrial sources and ICST ${ }^{2}$ (now ESTAC ${ }^{3}$ ). It is anticipated that funding from NSERC and the Queen's ARC will continue to decrease, as will funding from some other Canadian and U.S. government agencies, and that faculty will have to look to other sources to maintain and increase their research funding levels.

Recommendation F3. With the anticipated decreases in NSERC Research funding in the near future, faculty should be encouraged to seek other sources of research funding. The Department should hold an annual research funding workshop, organized by the Head, at which some of these sources are reviewed and discussed. [Head]

## 3. National and International Reputations

This department seems to lag behind other Canadian chemistry departments in its efforts at self-promotion. There could be several faculty on nomination lists for various prizes and awards at all times, and the small committee which has been established to initiate such a practice should be strengthened, should be informed of possible nominations by other colleagues, and should receive cooperation from colleagues whom they wish to nominate.

[^10]Publicity concerning departmental success stories has been improving, but the procedures for ensuring appropriate publicity in on- and off-campus media should be standardized.

Recommendation F4. The Head should maintain curricula vitae, updated continually, for all faculty, and should strengthen the mandate of the Awards Nominating Committee.

## 4. Seminar Program

The Departmental seminar program has a small budget, is therefore funded significantly by individuals' research grants, and thus is largely supported by those willing and able to do so. Many faculty do not attend seminars regularly, and graduate students are allowed by some supervisors to largely ignore the program even though attendance is required. The Department has three supported Lectureships; the J.K.N. Jones Visitorship, the J.A. McRae Memorial Lecture, and the G.B. Frost Memorial Lectureship. These lectureships have been held sporadically during the past ten years. The Jones Visitorship, for example, which is to be held "not less frequently than biennially" has seen only three distinguished visitors during the thirteen years since its inception.

Recommendation F5. The Department should debate the role of the seminar program in regards to its graduate teaching and research objectives, with a view to its rejuvenation. The terms of reference and the status of the trust funds of the supported lectureships should be reviewed in an effort to place these events on a more frequent and regular schedule. [Head, Seminar Coordinator]

## 5. Creation of a Supportive Research Environment

The presumed renovations of the chemistry buildings will offer a unique opportunity to provide modern laboratories and facilities. More than the minimum amount of funding necessary must be found, and a first class facility must be built. Assuming full support of the University, then all faculty must take part in the planning and building stages and in the temporary reallocation of space during construction.

The Department also seems to be entering an era where faculty will engage in and receive credit for differentiated professional activities via negotiated responsibility profiles (see Recommendation B3 in the Staffing section). This change is to be welcomed. The Heyding-Brown-Gordon formula has been utilized to apportion lecturing responsibility, and perhaps a similar formula for research and graduate supervision could be devised. Since teaching and research nominally carry equal weighting (40:40), a particular sum of one's loads calculated from the teaching and research formulae could be expected of all faculty, with appropriate adjustments in teaching loads where necessary.

## II. GRADUATE STUDIES

## PREAMBLE

Although doctoral studies began formally in 1889, in practice the graduate enrollment of the Department consisted almost completely of M.Sc. students through the first half of the twentieth century. It was only during the 1950's that doctoral studies became an integral part of graduate teaching in this department. A dramatic expansion of the chemistry M.Sc. and Ph.D. programs occurred in the mid-1960's, with about 90 graduate students being enrolled in 1968. The enrollments of graduate students in the Chemistry Department declined significantly during the 1970's, as it did in most graduate chemistry programs in Canada. The graduate enrollment exhibited a steady increase in the 1980's, from 30 students in 1980 to nearly 70 at the end of the decade, with approximately 80 students in Chemistry today. Increases in both the percentage of women graduate students and the percentage of Ph.D. students have coincided with the $50 \%$ increase in total graduate enrollment over the past seven years.

The Department of Chemistry offers post-graduate programs leading to M.Sc., M.Sc.(Eng.), and Ph.D. degrees, with students registering in either Division III or IV of the School of Graduate Studies. In July 1994, the Department submitted a Periodic Appraisal Report [9] for review by the Ontario Council on Graduate Studies (OCGS). In January 1995, the OCGS approved the offering of M.Sc., M.Sc.(Eng.), and Ph.D. programs in Chemistry for the period 1995-2002, with a classification of "GOOD QUALITY" (highest ranking). The following comments concerning the graduate programs were made by the Appraisals Committee:
"The current University policy of $1: 1$ replacement for retiring faculty members was noted. The committee trusts that this policy will continue to be followed since the numerous retirements between 1999-2001 would otherwise have profound negative effects on the quality of the program, particularly in the areas of analytical and physical chemistry."
"The University will also wish to continue to ensure that the number of undergraduate courses doubling as graduate courses is minimal, so that the program requirements are met mainly through dedicated graduate courses."

## 2. Graduate Enrollment

The graduate enrollment in the Department of Chemistry in the 1990's has exhibited a significant increase, from 66 students in 1990 to 82 students in 1994, a considerable contribution towards achieving the Senate's goal of $20 \%$ of Queen's students being enrolled in graduate programs. It is expected that the graduate enrollment for September 1995 will be 81-84 students, and a slow increase by one or two students per year may be anticipated through the turn of the century.

The graduate enrollment will depend on a number of factors, such as faculty numbers, research funding, scholarship and teaching assistant support, and space. The twelve faculty scheduled to retire in the next ten years currently supervise about $30 \%$ of the graduate students, and several may be anticipated to continue to co-supervise graduate students after retirement. With faculty renewal in well-funded and attractive areas of research, along with the Bader Chair in Organic Chemistry, it should be possible to slowly increase the number of graduate students, even with anticipated reductions in University and research funding.

The graduate student stipend is comprised of scholarships ( $40 \%$ of total, averaged over past five years), teaching assistantships (23\%) and research assistantships (37\%). The scholarship support is a mixture of external scholarships (mainly NSERC, OGS, and OCMR) and internal scholarships (primarily Queen's Fellowships and Queen's Graduate Awards). While the amount of external scholarship support varies from year to year, the internal scholarship support is more predictable. The Department received a significant increase in its scholarship (QGA) allotment this year, in part due to a return of $80 \%$ of the post-residency fees to QGA funds. Our QGA allotment is also tied to our enrollment numbers and maintaining our record of degree completion times.

The teaching assistantship allocation from the Faculty has remained relatively constant for the past few years ( $\$ 239,847$ in 1994/95), while the first and second year undergraduate enrollments (1190 1st year in 1992/93-1230 in 1994/95; 956 2nd year students in 1992/93-1098 in 1994/95), as well as the graduate enrollment (66 in 1992/93 - 82 in 1994/95) have increased [2]. The value of a teaching assistantship for two periods at Queen's is $\$ 5,000$, significantly lower than the $\$ 7,000-8,000$ in chemistry departments at other Ontario universities. The Department has a good case for requesting a greater share of the Faculty allocation for teaching assistantships.

Recommendation F6. The Department should request a greater share of the teaching assistantship budget from the Faculty in view of (i) the high and increasing level of service teaching at the first and second year undergraduate levels, and (ii) a steady increase in the graduate enrollment. [Head]

The case would be further strengthened if we can demonstrate that the quality (as well as the quantity) of teaching assistants will be increasing in the future. Course evaluations administrated by the DSC have consistently indicated an unhappiness of the undergraduate students with regards to the performance of teaching assistants in the Department. The instructional Development Centre provided a seminar for graduate teaching assistants last fall, and this training should be extended to teaching assistantship seminars specific to chemistry. This training program will be a responsibility of the proposed Laboratory Coordinator (see recommendation B2 in the Staffing section).

Recommendation F7. A Teaching Assistantship training program for graduate students, designed to increase the quality of undergraduate teaching and the level of safety in the
laboratory, should be developed by the Laboratory Coordinator, with expertise and assistance from the Instructional Development Center. [Head, Laboratory Coordinator]

Research assistantships from the supervisor's research grants are used to bring the total stipend up to a guaranteed minimum. Research funding must also be used to support the research of the graduate student in terms of chemicals, glassware, equipment, and instrument time, etc. Significant decreases in research funding could therefore have a considerable effect on graduate enrollment in the future (Recommendation F3).

## 3. Graduate Curriculum

The Department offers 34 term-length lecture courses ( $248 x y$ and $109 x y$ primary courses), 2 thesis courses, and 5 non-credit seminar and auxiliary courses at the graduate level. The lecture courses are distributed over six areas of specialization in chemistry (analytical, inorganic, organic, polymer, physical, and theoretical) and 11 of these courses are "double-numbered" ( $4 x y / 8 x y$ ) undergraduate/graduate offerings.

An effort was made at the beginning of the 1990's to reduce the number of "doublenumbered" courses, which may contain 3rd and 4th year undergraduate students along with senior doctoral students, in order to raise the level of the 800 level graduate courses. As a result, the 400 and 800 level organic and physical chemistry courses were separated. A continuation of this process with courses of the other subdisciplines has not been practical due to limited faculty numbers in these areas. With faculty hirings in these areas in the near future, and a careful examination of 400 and 800 course offerings, a continuation of the "undouble-numbering" process would be possible.

Recommendation F8. The Department of Chemistry should continue to decrease the number of "double-numbered" $4 x y / 8 x y$ courses, with a goal of eliminating or minimizing these courses by the end of the current OCGS approval period (2002). [Graduate Studies Committee]

With the prospect of a reduction in faculty numbers, the elimination of teaching adjuncts, and an effort to reduce teaching loads, a return to a sizable number of combined $4 x y / 8 x y$ courses may be inevitable. It will be necessary, in this situation, to ensure that the level of work expected of the graduate students continue to be significantly higher than that of the undergraduate students. The calendar descriptions of all "double-numbered" $8 x y$ courses currently state that the CHEM-8xy course "Corresponds to CHEM-4xy with additional assignments."

Recommendation F9. The Department should maintain on file course information on 800 and 900 level graduate courses. In the case of "double-numbered" $4 x y / 8 x y$ courses, or $4 x y$ courses taken by graduate students, the additional work assigned to the graduate students in the course should be identified. [Head, Graduate Studies Committee]

There has been an increase in recent years in the numbers of graduate students who enter M. Sc. or Ph. D. programs in Chemistry with an undergraduate or M.Sc. degree in a field other than Chemistry. These "non-traditional" fields have included and will continue to include biochemistry, environmental science, physics, mathematics, engineering chemistry, and chemical engineering. This trend is likely to continue as the research undertaken in the Department becomes more interdisciplinary, interdepartmental, and interinstitutional in the future.

It will be necessary, as a result of this, to consider these diverse backgrounds in the development of graduate programs in the Department. This may involve building in flexibility in graduate admissions, course requirements and selection, Ph.D. Comprehensive Examination procedures, and the makeup of supervisory and examination committees. The recent changes to the Comprehensive Examination procedures should help to accommodate these students. The creation of more faculty cross-appointments into Chemistry would also help.

Recommendation F10. The Department of Chemistry, through its Graduate Studies Committee, should review the current graduate regulations and procedures, and make changes which would facilitate further opportunities for interdisciplinary graduate studies and research.

## Section G

## PUBLIC RELATIONS

The objectives of public relations for the Chemistry Department are surely to enhance its image in the eyes of the outside world and to ensure its long term viability. As the financial picture of the Ontario universities system becomes more bleak (certainly the part financed by the Province) and as funds provided as direct research grants by NSERC diminish, the well being of the Department will depend more and more on our own initiatives and probably in a manner to which many of us are unaccustomed. An efficient public relations strategy for the Department must be ongoing and must include all members. To coordinate Departmental public relations to raise public awareness of the qualities of the Chemistry Department, and to seek new initiatives to increase that awareness probably require individuals whose responsibilities include this mandate.

Recommendation G1. That a proactive program of public relations be implemented. [Head]

The following (not in any particular order of merit) serve to define such a program:

- Oversee production of the Alumnae/i Newsletter
- Ensure that the public is aware of significant events in the Department - new faculty, facilities and their capabilities, undergraduate programs, etc. Any research results that will obviously strike a chord with the public and which give instant, though maybe ephemeral, publicity is of value. Mechanisms for collecting and distributing such information to Queen's and outside publications should be in place.
- Set up strong liaison with high schools. We have had visits from classes in the past, we have on occasions lent out equipment to keen high school teachers, we have acted as judges in district science fairs, etc. Some of these participations have been with reluctance on our part and very little of it has been due to our own initiatives. We could hold competitions for bright high school students as do Waterloo and other universities.
- Hold lectures (not just one in a blue moon) which will be of interest to the general public. Find out what type of chemistry they are interested in, i.e., what will sell, not what we think they should be interested in.
- Bring selected alumni back to give lectures.
- Give more publicity to our "name" lectures.
- Be more forthcoming in nominating chemists for honorary degrees.
- Make known to local industry what our expertise and capabilities are (local in this context can mean anything we choose it to mean).
- Try to gain membership in the group of acknowledged "brains" that CBC and CTV call upon when they require expert opinion. Science programs such as Quirks and Quarks are broadcast worldwide.
- Oversee the tracking of alumni and improve alumni relations. Continue hosting receptions for alumni in both faculties at appropriate times of the year.
- Introduce new fund-raising initiatives. One or more brainstorming sessions should be organized to see how to set about using the new freedom that we have in this area.
- Ensure that the Department is adequately represented on Faculty and University committees. The Department needs members in as wide a range of committees as possible in order to know what is going on outside the Department and to influence any new initiatives to its advantage.
- Take advantage of resources and services provided by the Office of Advancement in regard to alumni and development.

The raison d'être of the Department is the education of graduate and undergraduate students. They are, and will be our best public relations assets. They are the ones who will contribute most both financially and by influence to the viability of the Department. They must be satisfied that we have given them both an excellent education and have made their life in the short time they are with us as enriching and rewarding as possible.

The above document was prepared by the Department of Chemistry following a "Self-Review" initiated in the fall of 1994, and at the request of the University Administration. It is important to note that such an Academic Development Plan (ADP) would have been done in any event given that the Department has just hired a new Head from outside as of July 1, 1995.

The ADP for Chemistry is a comprehensive document prepared with extensive input from the Faculty and Staff (see Section A, part I) and presents a thoughtful and realistic evaluation of the current operation along with many recommendations for much needed change.

The first three sections of the ADP deal with priority areas for the Department. These must be addressed as soon as possible in order that the Department can move forward towards them, and the University's stated [11] goal of being in the top five in Canada.

The Department currently is accredited for undergraduate and graduate programs in the four traditional areas of chemistry (analytical, inorganic, organic, physical), and also by the CEAB for the Engineering Chemistry program with review to occur in 1996. As well, a new initiative in Environmental Chemistry has commenced, bringing to six the number of programs for which the Department has responsibility. In order to maintain viability, and indeed accreditation to offer advanced degrees in our four essential areas, the Department is committed to a staffing strategy that would see one each of an inorganic, environmental, analytical and physical chemist hired over the course of the next two years. It is important to note that none of these priorities can be omitted if we are to maintain a presence in each of these areas.

The Department is philosophically committed to maintaining its longstanding and successful Engineering Chemistry program. Should severe budget cuts be imposed the Department must consider new and alternative mechanisms by which it can deliver high quality programs and, in the limit, whether it can continue to support all programs or only certain ones.

A key element to the ADP is the refurbishing of the Facilities through new or renovated buildings. Our ability to deliver stimulating and effective laboratory programs depends upon the quality of the labs, which in turn depends on the adequacy of the facilities (e.g., ventilation and fumehoods). Indeed, our current facilities are arguably substandard in terms of meeting minimal safety standards. It is also true that the current state of the buildings puts the Department at a severe disadvantage relative to other

Universities across Canada in attracting quality graduate students and in enticing the best candidates for faculty positions.

Better management of the Department's technical resources is essential. Several initiatives can be undertaken virtually immediately. These deal with formation of a Technical Resources Committee, the assessment of the roles and cost effectiveness of our technical support, and streamlining the Departmental Stores and purchasing systems. However, much of what is to be done in this respect will only be possible after completion of the renovation/rebuilding process since it involves physical relocation of facilities.

The following Department of Chemistry personnel served on the five Academic Development Plan committees:

Coordinator:
Staffing Committee:

Space \& Renovations Committee:

Technical Resources Committee:

Undergraduate Studies Committee:

Graduate Studies \& Research Committee: Donal Macartney (Chair)
Mike Baird
Warren Baker
Vedene Smith
Gary vanLoon

Individual contributions were made by Jim McCowan (history of department) and John Stone (public relations).

The office staff provided excellent assistance in organizing and announcing countless meetings, and in preparation of this document.

## Section J

## REFERENCES

[1] Department of Chemistry Self-Review - March 1995, compiled by D.M.Wardlaw.
[2] Vice-Principal (Academic) David Turpin, in conversation with R.S. Brown on September 26, 1996.
[3] "A Draft Discussion Paper on Space in the Department of Chemistry", prepared by B.K. Hunter and M.C. Baird, Feb. 1995.
[4] G. Whitesides, "What Will Chemistry Do in the Next Twenty Years," Angew. Chem.Int. Ed. Engl., 29 (1990), 1209.
[5] "Current Trends in Chemical Technology, Business, and Employment," American Chemical Society, Washington, D.C., December 1994.
[6] D.E. Koshland, "The crystal ball and the trumpet call,", Science, 267 (March 17, 1995), 1575.
[7] H. Weintraub, "Through the glass lightly," Science, 267 (March 17, 1995), 1609-18.
[8] J. Emsley, "Chemistry in the 1990's: Active Areas Revealed," Current Contents, 35, No. 12 (1995), 3.
[9] "Shaping the Future: The Chemical Research Environment in the Next Century, ACS Presidential Colloqium," April 5-7, 1994, Washington, D.C. (http://www.acs.org/symgen/col//stf/intro.htm). (special thanks to Jane Philipps for locating this publication).
[10] OCGS Periodic Appraisal Report - Department of Chemistry, July 1994.
[11] Professor W. Leggett, Principal, Queen's University in a personal conversation with R.S. Brown, October, 1994.

## FAX FROM

Dr. Alfred Bader
924 East Juneau, Suite 622
Milwaukee, Wisconsin 53202
Phone: 414/277-0730
Fax: 414/277-0709
A Chemist Helping Chemists
October 16, 1995

To: Ms. Joyce M. Zakos
Assistant to the Principal
Fax: (613) 545-6838
Dear Joyce:
Thank you so much for your detailed fax of October 12th.
I am staggered by how much extra work you have to do because of our visit. This wouldn't be so serious in normal times, but during worries about budget cuts and a union election, this must be particularly stressful.

Could you please let Mayor Bennett know that we will be delighted to accept a Certificate of Appreciation, which we will add to the keys of the City of Kingston which we received with great pleasure some years ago.

The only minor detail I would like to ask you to change in the schedule is to cancel most or all of the taxis. Who has ever heard of a member of Science ' 45 taking a taxi from Gore Street to Summerhill?

I am faxing Tom Thayer asking him to leave the latest updates of the various Bader Funds at Summerhill, and if possible, I would like to squeeze in a few minutes to talk to him about these.

By the time that we come to Kingston, Isabel will know from her sister, Marion, on which bus she will be arriving in Kingston on Sunday. ( 4.50 jum)
During our limousine trip from Toronto to the Holiday Inn, I would like to stop at the Agnes Etherington Art Centre and leave two paintings which we have acquired for Queen's as well as some material for Professor Manuth. I would like him to look over that material before we meet at Summerhill on Sunday at 4:00 p.m.

With all good wishes to you, Principal Leggett and Cathy Perkins, I remain,
Yours sincerely,
$\mathrm{AB} / \mathrm{cw}$


## FAX FROM

Dr. Alfred Baden
924 East Juneau, Suite 622
Milwaukee, Wisconsin 53202
Phone: 414/277-0730
Fax: 414/277-0709
A Chemist Helping Chemists
October 16, 1995
Page 1 of 5
To: Ms. Joyce M. Zakos
Assistant to the Principal
Fax: (613) 545-6838
Dear Joyce:
Please forward the attached letters to Dr. Bader when you see him next. Thank you very much!
Best wishes,


Office Manager

## TO ALFRED:

Deborah and Michael have some questions regarding your return, etc. As of our conversation Thursday, my understanding was that you were now planning to return Monday morning. Deborah said she would talk to Michael and ask him to stay and entertain Volker and company while she comes to airport to pick up you and Isabel. Would that be OK? Deborah would also like to know how many guests are staying over on Monday night. The Thursday evening flight had availability as of last Thursday. Are you still planning on the Monday morning flight?

Deborah would also like to know if she should mail the check to Iron Fireman.
Marvin's son-in-law stopped by the gallery this morning briefly and thought it was lovely.
Faxes from Otto (2 gs.), Allan Cohen, C. Tümpel, and Dr. C. Brown follow. (I replied to Otto re: your travel schedule and said I'd forward the list of paintings to you.)

Hope you are enjoying the reunion!


## FAX TRANSMISSION

ALUMNI ASSOCIATION

To:
Dr. Alfred Bader
Fax: 414-277-0709

From: Ivanka Franjkovic
Branch Development Coordinator
Department of Alumni Affairs
Queen's University
Kingston, Ontario
K7L 3N6
Phone: (613) 545-2060 Fax: (613) 545-6777

Date: October 17, 1995
Number of Pages: (including this one) 2
Dear Alfred,
Thank you for your fax of October 9 . It's unfortunate that we were not able to organize a lecture for you this year. Ill mark it on my calendar for next year! I'm sorry that you and Isabel will not be able to join the Ottawa Seniors group for their luncheon.

As you stated it is too late to plan a more formal event for October 26. However if you and Isabel still have that day free I would like to organize a very informal reception for you so that you both have a chance to meet some of our alumni in Ottawa who, 1 know, would love to have a chance to meet you.

It would be a small gathering of about ten to fifteen people. Peter Milliken, Kingston's Member of Parliament, would host it in a reception room at Parliament Hill. The reception would last for 1 hour starting at 5:00 p.m. Afterwards, if you are available, you and isabel could join a small group of Ottawa Branch executive members for dinner.

Please let me know if you would be interested in the informal reception, the dinner, or both. I know our Ottawa alumni would welcome an opportunity to meet you and Isabel.

In the spring if, I recall correctly, you indicated that you might be attending conferences on the east coast of Canada this year and that you might be willing to give lectures to our alumni branches in those cities. If you are still interested

Tel 013 545-2060 $1800267-7837$ Fax $613545-6777$
interested in doing so and if you would be willing to give me the names of the cites you will be visiting and the dates when you will be there, I would be pleased to organize a series of lectures for you.

Kind regards,


Ivanka Franjkovic Branch Development Coordinator

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(7) Unfortmatily the CIC meting (usually held in May) will be hold ar the end of jove $C$ we cannot arena.

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# DEPARTMENT OF CHEMISTRY 

MEMORANDUM

TO: Associate Dean Roberta Hamilton Faculty of Arts and Science<br>FROM: R.S. Brown<br>DATE: $\quad$ October 18, 1995<br>SUBJECT: Proposed Hiring of Instrument Manager and Bader Chair

Queen's University Memorandum
Dear Roberta,
As you know, the Department of Chemistry has submitted the final form of its Academic Development Plan (ADP) to you at the end of September. The Department feels now is the time to act on certain recommendations given in the ADP which relate to the hiring of key individuals.

1. As you know, Dr. S. Fortier has been appointed to a new administrative post as the Vice-Principal-Research. Since this is the second five year appointment for her, the Department would like to explore the possibilities of releasing a position. This issue was raised by the former acting Head, Dr. A. Natansohn to the Faculty Office in a memorandum dated March 30, 1995. As described in our ADP, the Department is in desperate need of an Instrument Manager who would be responsible for our major instruments such as NMR and mass spectrometer. Ideally this would be a continuing staff position at the Ph.D. level. I have instructed our newly formed Technical Resources Committee to formulate a job description for such an individual by the end of October. What I need from you is authorization to proceed with advertising for this. Ideally we would like to start this Fall.
2. Following the completion of the ADP we are pleased to inform you that the Department is now in the position to consider candidates of the Bader Chair which was so generously endowed by Dr. A. Bader some time ago. The ideal candidate for this position is someone with exemplary academic credentials, and a fine record of teaching and leadership. We have initiated discussions within to identify such candidates. To attract such a person will require at a minimum that renovated space be found. I am confident that the proposed space renovations/rebuilding will suffice and hope they can be conducted in a timely fashion. That person is likely to have considerable instrumentation demands in NMR and mass spectrometry as well which makes hiring of an instrument specialist (above) even more imperative.

We would like clarification from the Faculty Office, and higher if appropriate, on how to proceed in this matter. Some considerations we need to address are: 1) the time line for advertising; 2) consideration of set up monies for the individual. These are likely to be considerable; 3) can there be consideration of selected renovations consistent with the total renovation scheme that would be undertaken with a separate timeline in order to attract the individual.

I look forward to a reply at your earliest convenience.
Sincerely,
copy to: Professor D. Turpin, Vice-Principal Academic Professor W. Leggett, Principal
Professor J. Cowan, Vice-Principal, Operations
Dr. Alfred Bader

## 



FAX
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## REMARK

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DATE: :...


## Dear Roberta

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DEPARTMENT OF DEVELOPMENT

October 24, 1995

Queen's University
Kingston, Canada
K7L 3Nb
Tel 613 545-2060
Fax 613 545-6599

Dr. \& Mrs. Alfred Bader

Summerhill
Queen's University
Kingston, ON

Dear Dr. \& Mrs. Bader:
It was an enjoyable priviledge to hear of your many philanthropic efforts both within and without Queen's University. Prior to my work at Queen's, I established the development office for the Aga Khan Foundation. Although it has been many years since my activities in third world development, I still recall the many concerns our organization felt about many, many initiatives advertising their work in the third world and the disproportionate amount of donor resources being allocated to administration. Dr. Peat's innovative work is exciting, so I add my voice with many, in thanking you for your recognition and support so that the CBR programs may continue.

As representative of the Annual Giving Unit, I would like to present you with copies of the 1996 Queen's University Calendar. This is a project recently completed as part of our fall solicitation to alumni, faculty and staff. I hope you will enjoy this reflection of Queen's life and work throughout the year with our sincerest appreciation for your continued interest in the many programs, faculty, and students of the University.

At the risk of being accused of 'solicitation', would you please bear with yet another request to autograph a copy of your fascinating book. As you were both pressed to make another commitment with Dr. Peat, it was not possible to ask you at this morning's meeting. Appreciating the many demands of your time, please do not feel obligated to accomodate this request if you are required elsewhere. For ease of return of this book, I include a return envelope.

Wishing you both continued 'youth' and prosperity.
Kind regards,

Janet A. Leggatt, CAHP
Manager, Annual Giving

## TUESDAY, OCTOBER 24 - DINNER FOR DRS. ISABEL \& ALFRED BADER

| Angus, Margaret | Kingston Historian. Donor of the costume collection at the AEAC |
| :---: | :---: |
| Daicars, Maggie \& Tony | Retired Kingston Physician. Great interest in art, including the Leonard Brooks Collection in Mexico. |
| Davies, Elaine \& Michael | Former Publisher/Owner of the Kingston Whig Standard. Former Board of Trustees member. Current Chair of Queen's Fund Council. |
| Fell, Christa \& Albert | Friends of AEAC, Professors of Philosophy and German respectively. |
| Franks, Daphne \& Ned | Ned is a Professor of Political Studies and president of Gallery Association (AEAC), Daphne manages AEAC art rental program. |
| Fraser, Ian \& Janine Schweitzer | Director of Development, Queen's University. |
| Fyfe, Jocelyn \& Stewart | Professor of Political Studies. |
| Henderson, William | Retired Judge. |
| Hopps, Judy | Director of Capital and Faculty Projects, Office of Advancement. |
| Koven, Merle \& Phil | Merle is current Board of Trustees member and sits on the AEAC Advisory Board |
| Rosen, Gini \& Irving | Local Business Owners \& Philanthropists. |
| Smith, Sally \& Col. A. Britton | President of Homestead Land Holdings and avid historian. |

Dr. Alfred Bader


Dear Dr. Bader:
It was a pleasure to meet you last evening. Thank you for taking the time to provide me with some of your views on the education program that my students are attempting to implement. Their idea is to set up a program which brings Canadian and Eastern European students together at Herstmonceux with a view to supporting the endeavors of the Eastern European transition economies and, at the same time, contributing to the internationalization of Canadian students. They would very much like their program to succeed and I know that they will welcome your advice.

Your comment to the effect that we should be careful to target a jurisdiction which both needs our help and is sufficiently advanced to make real changes as a result of our help is well taken. Also, you raised an interesting perspective when you suggested extending our target area beyond countries such as Poland and Hungary and considering jurisdictions such as Albania, Macedonia and, at the appropriate time, some(or all) of the former Yugoslavia. I shall pass on your comments to my students as soon as possible.

Once again, thank you for your input.

Yours truly,


Michael L. McIntyre
PhD. Candidate
cc. W. Donald MacNamara

Executive Director
International Study Centre

Dr. Alfred Bader
924 East Juneau, Suite 622
Milwaukee, Wisconsin 53202
Phone: 414/277-0730
Fax: 414/277-0709

A Chemist Helping Chemists
October 30, 1995

Dr. Boris Castel<br>Queen's Quarterly<br>184 Union Street<br>Kingston, Ontario K7L 3N6<br>Canada

## Dear Boris:

Isabel and I so enjoyed meeting you last Monday and then again later in the week.
Please do fax me if there are any questions that have come to your mind since.
At Queen's, I met an interesting student, Carol Barrett, a junior in French, a Jamaican girl who writes in a very challenging manner.

She gave me a series of thirty vignettes entitled Meditations on Blacks, Whites and Other Mysteries. I enquired whether I could share this collection with you, she said yes, and so it is enclosed.

Might you be able to publish some of this in the Queen's Quarterly?
Her letter to me, copy enclosed, will be self-explanatory.
With all good wishes, I remain,
Yours sincerely,
$\mathrm{AB} / \mathrm{cw}$
Enclosures

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# QUEEN'S UNIVERSITY MEMORANDUM 

Currently registered in B.A. (Hons) French Studies Year 3
Current Balance (\$677.16)
OSAP award for 1995/96 \$6351.00 Fall: \$5081.00
Winter $\$ 1270.00$
This student registered in September based on her OSAP estimate. At the time of registration the student's account balance was nil. We have since received payments in amounts of $1191.00,9.00$ and 1946.00, leaving a credit balance in her account in the amount of 677.16. This amount will be refunded to her as we process the automatic refunds this month.

Based on the dates on the Award system, I expect the payments to have been made from OSAP funds.

The student has not opted out of any of the activity fees and she is currently registered in 4.0 courses.

We do not have any record of conversations with her, nor is there any record of payment problems.

Student Awards reports that the student was given a Short Term Loan in the amount of $\$ 1750.00$ because of a delay in the OSAP funding, although the OSAP loan documents were picked up September 19/95. There is still $\$ 550.00$ outstanding on the Short Term Loan. No Long Term Loan was applied for.

The student applied for a Work Bursary but was declined based on failing to meet the criteria for eligibility for Work Bursary.

Dr. Alfred Bader<br>924 East Juneau, Suite 622<br>Milwaukee, Wisconsin 53202<br>Phone: 414/277-0730<br>Fax: 414/277-0709

A Chemist Helping Chemists
October 30, 1995

Professor Malcolm Peat<br>Executive Director<br>Community Based Rehabilitation<br>Queen's University<br>Kingston, Ontario K7L 3N6<br>Canada

Dear Dr. Peat:
Our meeting with you last Tuesday was the highlight of our visit to Queen's.
What a true blessing for the people of Bosnia that a man of your competence and caring heads the Queen's effort there.

Thank you for your letter of October 25 th advising us that there are approximately $\$ 600,000$ remaining in the current agreement, which ends in December 1996.

All thinking people hope that the peace agreement which has begun will hold. But sadly, there is no assurance, at least at this time, that the peace will hold, and your continued efforts might well be required for some time to come. Isabel and I have discussed with Principal Leggett how we might best continue to help, of course principally with the help of the Canadian government. Please do keep us advised how we might best do this.

With all good wishes, I remain,
Yours sincerely,

## AB/cw

## cc: Principal William Leggett

## Community Based Rehabilitation

A Project of the School of Rehabilitation Therapy and the International Centre for the Advancement of Community Based Rehabilitation (ICACBR) QUEEN'S UNIVERSITY

October 25, 1995

Dr. and Mrs. Bader
c/o Queen's University
Kingston, Ontario
Canada

Dear Dr. and Mrs. Bader:
I was delighted to have the opportunity of reviewing with you the Queen's community rehabilitation program in Bosnia-Herzegovina. On the return of our colleagues from the present visit, I will prepare and forward to you a description of the program activities made possible through your donation.

In our conversation you inquired about the funds remaining in our current agreement with the Canadian Government for the project in Bosnia-Herzegovina. The current community rehabilitation project is supported with Canadian Government funds until December 31, 1996. There are approximately $\$ 600,000$ remaining in the current agreement.

Best regards,


Malcolm Peat<br>Executive Director

| In Canada: | Queen's University, Kingston, Ontario, Canada K7L 3N6 | Tel: 613 545-2812 Fax: 613 545-6192 |
| :--- | :--- | :--- |
| In Zagreb: | c/o CARE Canada, ZRINJEVAC 16, 41000 ZAGREB, Croatia | Tel: $38541428-896 \cdot$ Fax: $38541427-717$ |
| In Sarajevo: | c/o CARE Canada,TRG MERHEMICA 8 (CIGLANE), Sarajevo | Tel/Fax: $38771664-194 / 5$ |

Dr. Alfred Bader
924 East Juneau; Suite 622
Milwaukee, Wisconsin 53202
Phone: 414/277-0730
Fax: 414/277-0709
A Chemist Helping Chemists

October 31, 1995

Mrs. Judith Brown<br>Department of Development<br>Queen's University<br>Kingston, Ontario K7L 3N6<br>Canada

## Dear Judith:

Thank you for all your help last week.
I enclose a long letter from a third-year student in French at Queen's, Carol Barrett, which will be self-explanatory.

I hope that you will not mind that I have suggested to her that she chat with you.
With all good wishes, I remain,
Yours sincerely,
$\mathrm{AB} / \mathrm{cw}$
Enclosure


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DEPARTMENT OF RELIGIOUS STUDIES

16 November 1994

Dr．Alfred Bader
2961 North Shepard Ave．
Milwaukee，WI
53211
USA


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Dear Dr．Bader，
I very much appreciate your letter．It is unfortunate that we were unable to meet but mystery of mysteries，our events seemed to clash．However，next year we will be sure to meet－please do include me in your schedule．The Hillel students said extremely positive things about their meeting with you．I think you energized them in a way that we＂on－campus＂people can not．

I am actually acquainted with the book on the women in Theresienstadt－it is a tremendous book and is very effective where other books are not．I would be extremely honoured to meet with Professor Schwertfeger．

I suggest Ka－Tzetnik＇s House of Dolls or Shivitti which I have acquired from the University of Toronto library．I have not seen his work sold in standard Judaica bookstores．However，his writings are still in print and I think you could order them．I also recommend Aaron Appelfeld＇s new small book of powerful essays，Beyond Despair which was published last year．

Thank you again for your warm response．I look forward to meeting you and your wife next year．

Best of luck on acquiring the holocaust material．
Most Fondly，

（Dr．）Reena Zeidman
Chair
Jewish Studies
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| Revised: Octobex |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| BADER VISIT tober 19-27, 1995 |  |  |  |  |
| DATE | TIME | Evient | PI ACE | NOTES |
| Wed. Oct. 18 | a.m. | Arrive Toronto | Chelsea Inn |  |
| Thers. Oct. 19 | T.BA | Meet wfflurence Campbell, David McTavish, prior to Saunderson meeting | Chelsea Inn | McTavish will contact Baders |
|  | 9:00-9:30 a.m. | Bill Saunderson, Minister of Economic Development Trade \& Tourisan | Sth Fir <br> 900 Bay Sureet | Will include David Mc Tavist Florence Campbeli |
|  | 0.00 pmo | Interviesw with Pinmela Wralite POSTPONED | CRC, Toferite |  |
| Fri. Oct. 20 | 9:30 a.m. | David Mc'Tavish will meet Baders prior to meeting w/Eggleton | Chelsed Inn |  |
|  | 10:00 a.m. - 11:00 a.m. | Art Eggleton, President, Treasury Board | 95 Wellington Sereet West, Suite 1702 | Will include David McTavish and Margo Bindhandt |
|  | -12:00 p.m. | Vroomans Iimousioe Service to pick up Baders | Chelsea Inn |  |
| $\begin{aligned} & \text { deliverners } \\ & \text { poim } \end{aligned}$ | $-3: 00$ p.m. | Arrive Holiday Iru | Holiday Inn (Room reserved by Ahmmi Office) | Oct 20-22 <br> Alumni weekend highlights only. See detail on Alumni listing. |
|  | 1:00-4:00 p.m. | Class of 45 Registration and Tea | Holiday Inn |  |
|  | 6:00 p.m. for 7:00 p.m. | Sci '45 Reception and Class Dinner (Class photo before dimer) | Holiday Inn |  |
|  | 8:30 p.m. | Principal's Ceilidh | Grant Hall |  |
| Sat. Oct 21 | 1:00 p.m. | Football game (Ottawa @ Queen's) | Richardson Stadium Wiest Campus | . |
|  | 6:00 p.m. for 7:00 p.m. | Principal's Dinner | Wallace Hals. IDUC |  |
| Sun. Oct. 22 | 10:30 or 11:00 a .m. | Brunch | University Club | Reservations not required |
|  | 12:00 noon - 2:00 p.n. | Book signing | Agnes Etherington Art Centre | Diana Bristol and Christina Wintield to assist with book signing Marion Dick to arrive Summerhill |
|  | $-2.30 \mathrm{p.m}$ | Return to Holiday Inn (late check out) |  | Diana Bristol will arrange |


| BADER VISIT <br> October 19-27, 1995 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Approx 3:00 p.m. | Move from Holiday Inn to Summerkill |  | Innes van Nostrand will assist |
|  | 4:00 p.m. | Professor Volker Manueh | Summerhill |  |
| No Laxi- | 6:00 p.m. | Dinner with David \& Anndale McTavish and Art Historians | McTavish home | Taxi to and from 78 Gore Street. Cathy to arrange |
| Mon. Oct. 23 | 10:00 a m. | Interview with Boris Castel, Queen's Quarterly | 184 Unior Street | Boris Castel will escort Baders to QQ and Millel |
|  | 11:30 a.m. | Meet with Hillel members over lunch | Hillel House 124 Comme St | Contact: Dana Bookman <br> Phone: 531-4399 <br> Melissa Kluger \& Jennifer Baronian have been invited. Note: Melissa is on the Hillel Executive and met Dr. Bader at last year's Hillel meeting with him. <br> Taxi return |
|  | 2:00 p.m. | Bill Leggett (followed by short visit to ISC offices) | Principal's Office | Principal will escort Baders to ISC |
|  | 4:00-4:30 p.m. | Visit ISC offices | Room B206 Mac-Corry | Contact: Heather Ball |
|  | 5:30 p.m. $6000 \mathrm{p} . \mathrm{m}$. | Leggetes to host dimmer | Summerhill |  |
|  | 8:00 p.m. | Art History Iecture "The Detective's Eye" | Etherington Mall | Contact: David Mc'Tavish |
| Tues. Oct. 24 | 10:00 a.m.-10:45 a.m. | Informal meeting with Advancement staff | Sumaverhillt West |  |
|  | 10:45 amm: | Innes van Nostrand or Ian Fraser will escort Baders to LaSalle Building |  |  |
|  | 11:00 a.m. | Meet with Malcolm Peat | I.aSalle Building 2nd Flimer | Dr. Peat will escort Alfred \& Isabel to the University Club |
|  | 12:00-2:00 p.m. | Lunch with David and Mary Smith | University Club | Reservation for 5 <br> DCS will escort Baders to <br> Dunning Hall |
|  | 2:30-4:00 p.m. | hecture - School of Business History of Sigma-Aldrich | 13unning Auditorium | Contact: Bruce Buchan |
|  | 4:00-5:00 p.m. | Reception whilusiness faculty, and students | Dunning Iounge | Bruce will escort Baders as necessary |



HOME (area code 613) $544-4417$
541.1114
$549-6527$
385.2431
546.9494
$545-2190$

Contact telephone numbers:
NAME Olli! 'E

Torence Camphell
Bill Lcggett
Innes van Nostrand Joyce Zakos

David McTavish
Note: taxi vouchers will be provided

DEPARTMENT OF FINANCIAL SERVICES
Queen's University
Kingston, Canada
K7L 3N6
Tel. (613) 545-2050
Dr Alfred Bader
October 24, 1995
Summerhill
By Hand

Dear Alfred,
I enclose financial statements for five funds: the Special Bader Fund (848-267), the Conservation Fund (848-388), the Chair in Art History (844-470), the Bader Chair in Organic Chemistry (844-545), and the Abeyance Fund (422-500).

I will meet with you at Summerhill on Wednesday morning to answer questions about the statements.

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Tel. (613) 545-2050

## Dr. Alfred Bader

Special Fund (848-267)

Summary: October 1, 1994 to September 30, 1995

## Units

972,037
$(53,255)$
$(26,907)$
50,836
942,711
942.711

Book Value

Market value, Sep $30,1995: 942,711$ units * $1.59=\$ 1,498,910$
Estimated annual income:

$$
942,711 \text { units } * .0790=\$
$$

$$
74,474
$$

Notes:

1. Interest for full year allocated at start of year (May 1994)


## Dr. Alfred Bader

Art Restoration Fund (848-388)

Summary: October 11994 to September 30, 1995

|  | Units |  | Book Value |
| :---: | :---: | :---: | :---: |
| Fund balance, October 1, 1994 | 77,031 | \$ | 91,423 |
| Income (1) | 4,105 |  | 6,268 |
| Balance, September 30, 1995 | 81,136 | \$ | 97,691 |

Market value, $\operatorname{Sep} 30,1995: 81,136$ units * $1.59=\$ 129,006$
Estimated annual income: 81,136 units *.0790 $=\$ 6,410$

## Notes:

1. Income for 1995-96 fiscal year allocated at start of year (May 1, 1995). Income earned on income.

DEPARTMENT OF FINANCIAL SERVICES
Queen's University
Kingston, Canada
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Tel. (613) 545-2050
Dr. Alfred Bader
Bader Chair in Organic Chemistry (844-545)

Summary: October 1, 1994 to September 30, 1995

|  | Units | Book <br> Value |
| :---: | :---: | :---: |
| Fund balance, October 1, 1994 | 1,648,726 | \$2,375,626 |
| Income (1) | 87,930 | 134,261 |
| Balance, October 31, 1994 | 1,736,656 | \$2,509,887 |
| Market value, Sep 30, 1995:1,736,656 units * $1.59=\$ 2,7$ |  |  |
| Estimated annual income: 1, | 6,656 unit | . $0790=\$$ |

## Notes:

```
1. Interest for full year allocated at start of year (May 1994)
    Interest on interest allowed for full year
```

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K7L 3N6
Tel. (613) 545-2050

## Dr. Alfred Bader

## Chair in Art History (844-470)

Summary: October 1, 1994 to September 30, 1995:

Units | Book |
| ---: |
| Value |

Fund balance, October 1, 1994 1,431,250 \$1,940,192
Income (1)
Balance, September 30, 1995 1,431,250
$\$ 1,940,192$

Market value, Sep 30, 1995: 1,431,250 units*1.59 = \$2,275,687
Estimated annual income: $1,431,250$ units*.0790= $\$ 113,069$

## Notes:

1. Income is distributed to the expendable account.

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## Dr. Alfred Bader

Abeyance Fund (422-500)

Summary: October 1, 1994 to September 30, 1995:

Balance, October 1, 1994
Transfer to Science '44 Coop Interest (1)

Balance, September 30, 1995
$\$ 2,119,000$
$(2,000)$
167,375
\$2,284,375
(1) Interest calculated at rate of $7 \%$ Oct 1994 to Mar 1995 and a rate of 8.5\% Apr - Sep 1995.

October 23, 1995


[^0]:    Fortuna saevo laeta negotio et ludum insolentem ludere pertinax transmutat incertos honores nunc mihi nunc alii benigna. 52
    laudo manentem: si celeris quatit pinnas resigno quae dedit et mea virtute me involvo probamque pauperiem sine dote quaero. 56

    Fortune, rejoicing in a cruel enterprise, and perversely playing a mocking game, reverses short-lived honours, generous now to me, now to another.

    When she stays, I praise her: if she flaps her quick wings, I renounce her gifts, and cloaking myself in virtue seek undowered a respectable poverty.

    Ode $1.34(5-16)$ offers an even clearer parallel to the painting's allegory, speaking more universally of Fortune's power to alter human affairs, especially fate of kings:

    Diespiter
    5
    valet ima summis 12
    mutare et insignem attenuat deus
    obscura premens: hinc apicem rapax Fortuna cum stridore acuto
    sustulit, hic posuisse gaudet.
    Jupiter .... the god has power to exchange
    the high and the low, obscuring their affairs
    in darkness. Snatching the crown from
    one with noisy whirr, Fortune is glad
    to put it on another.

[^1]:    * Cultural process and transmission (ethnomusicology)
    * Feminist theory (music education and musicology)
    * Specialized source study (medieval and 17th century)
    * Computer applications in music (relevant to all areas)

[^2]:    * Flexibility is recognized as an enduring value in the Planning Document in which the intention "to create program designs that are maximally flexible" is identified as an objective.

[^3]:    * It is the intention of the School of Music to maintain a Faculty Recital Series of the highest quality and to make its presence a significant feature of the life of the University. The Faculty Recital Series will continue to be managed and administered by the Performing Arts Office with the support of the Faculty of Arts and Science and the University.

[^4]:    * Continue to support performance as an activity fundamental to learning and research.

[^5]:    * To encourage communication and cooperation among faculty, staff and students through informal meetings twice each term, with emphasis on the common good, shared interests, individual and collective successes, respect for all.

[^6]:    * The administration of the School of Music will endeavour to configure specific assignments such as to assure the greatest efficiency and effectiveness in deployment of available person-hours and skills.

[^7]:    Sept 25, 1995 Revision 2

[^8]:    5578 weekly lab contact hours, as at present
    26 full-time faculty
    80 graduate students and 20 other research workers
    9 office staff (admin. assistant, 4 secretaries, 2 storekeepers, 1 laboratory and
    1 instrument coordinator)

[^9]:    This is consistent with the total of 24 appearing in the 1995/96 row of Table 3 in Section B when Fortier (seconded to administration) and Weaver (half-time, soft money appointment) are included.

[^10]:    ${ }^{2}$ The Institute of Chemical Science and Technology
    ${ }^{3}$ Environmental Science and Technology Alliance Canada

