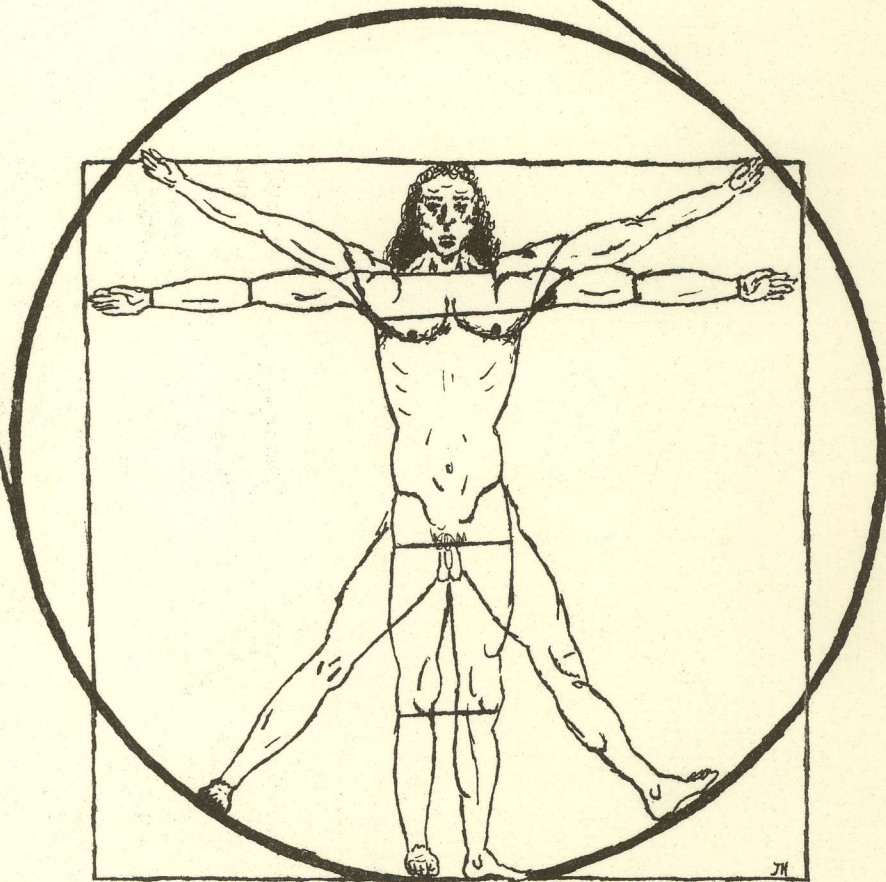


the
Open
Mind

Vol. 2, No. 1
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THE OPEN MIND STAFF

Editor-in-chief	Rosa Huang
Government & Politics	Tarus Balog
Literature	Darryl Peterkin
Education	Chris Stanard
Art	Jarrold Hayes
Science & Technology	Barry Campbell
Music	Helen Moore
Religion & Philosophy	Daniel Kemper
VAX Production Manager	Tushar Shah
Layout & Publicity	Robyn Lewis Craig Steffee

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* All VAX computer graphics by James D. Keirstead

THE OPEN MIND

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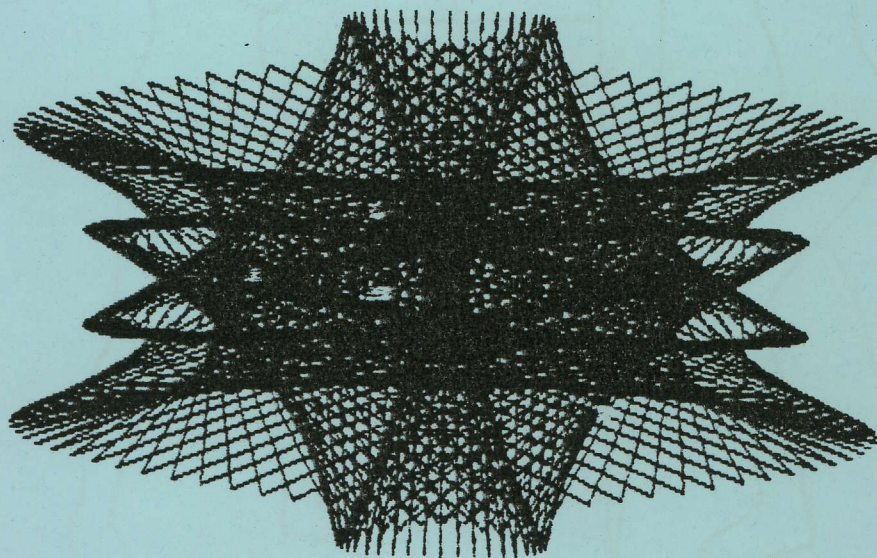
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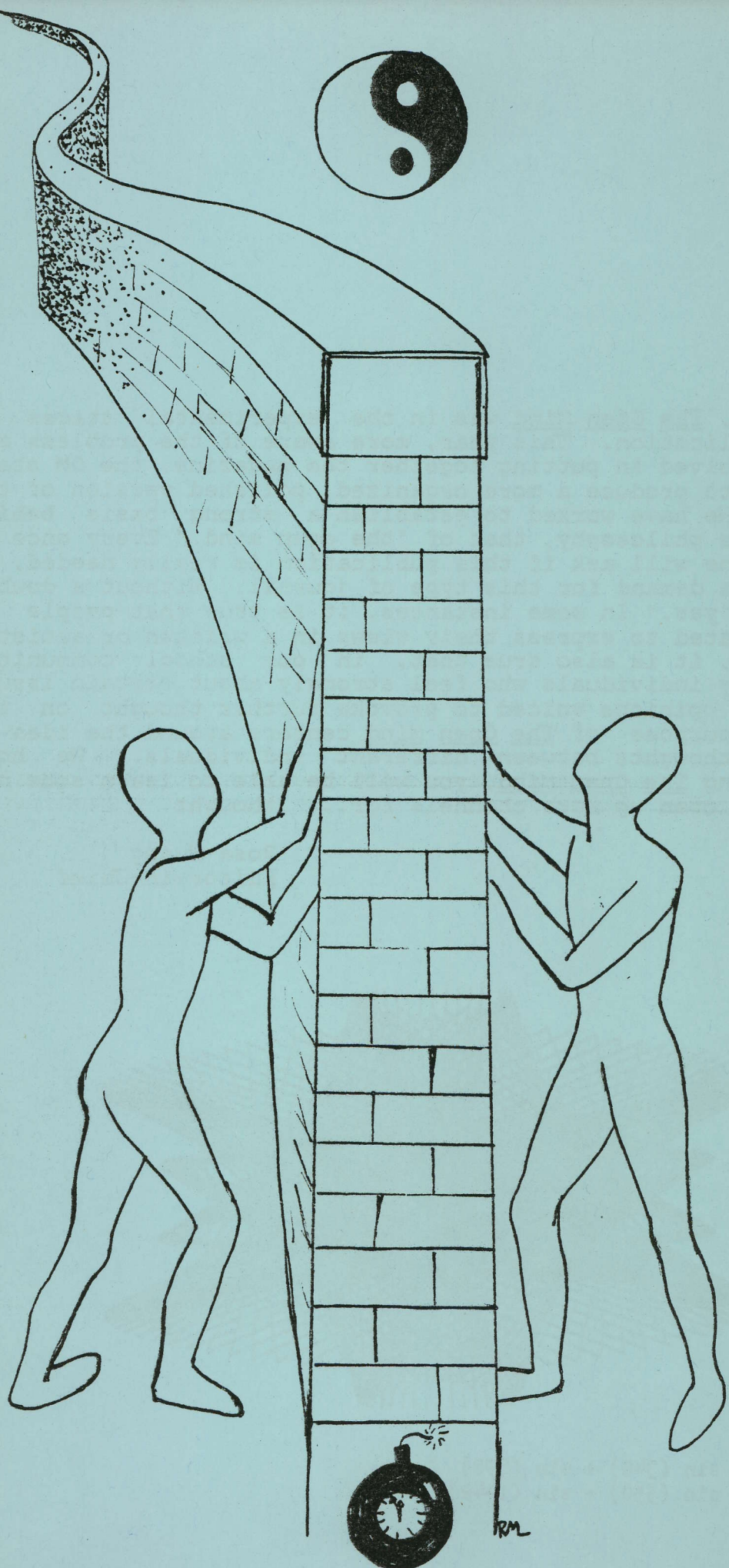
Dear Readers,

Last year, The Open Mind was in the experimental stages of its first publication. This year, more aware of the problems and procedures involved in putting together the magazine, the OM staff has attempted to produce a more organized, polished version of the publication. We have worked to establish a strong basis behind the magazine's philosophy, that of "the open mind." Every once in a while, someone will ask if this publication is really needed, if there exists a demand for this type of journal. Without a doubt, the answer is "yes." In some instances, it is true that people do not feel motivated to express their views in a written or artistic form; however, it is also true that, in our school community, there are many individuals who feel strongly about certain issues and need their opinions voiced to provoke further thought on the issue. The purpose of The Open Mind centers around the idea of communicating thoughts between different individuals. We hope that by reading The Open Mind, you will be able to learn some new ideas and thus open up more channels for... thought.

Rosa Huang
Editor-in-Chief



$$\begin{aligned}x &= \sin(34\theta) + \sin(89\theta) \\y &= \sin(55\theta) + \sin(144\theta)\end{aligned}$$



Commentary from the Editor: Walls

In a time when the threat of nuclear war with the Soviet Union is omnipresent, it is vital to recognize the existence of a communication barrier. This barrier has been evident in such controversies with Russia which concern the downing of the South Korean airliner in the Sea of Japan and the turmoil in Granada. The relationship between the United States and Russia is only a specific example of a problem on a larger scale, that of communication between people of different cultures. The lack of communication stems from misunderstandings and fear of the other culture. The problem can only be resolved by acknowledging its existence and taking affirmative actions to establish effective communication.

In terms of U.S./ Soviet relations, a definite break can be seen during the post World War II era which marked the beginnings of the Cold War. The United States had adopted the policy of containing communism. Truman, president at that time, had instated several plans to control communism such as the Truman Doctrine, the Marshall Plan and NATO. The United States, a superpower after WWII, sought to contain communism at all costs. East European countries such as Poland, Rumania, Bulgaria and East Germany were all going communist, and Americans were scared to the point of building numerous air raid shelters. The fear resulted in many U.S. alliances with non-communist countries and a decline in communication with the Soviet Union. A barrier was becoming evident.

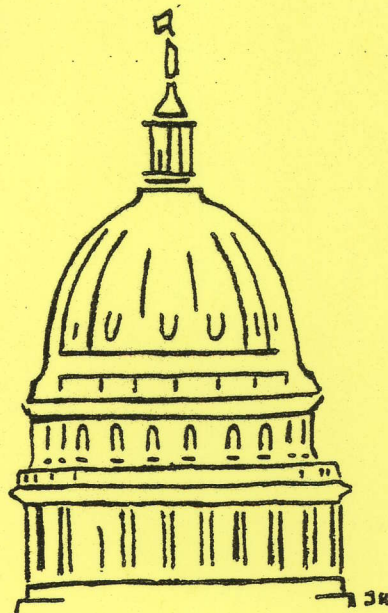
In *The Dispossessed*, Ursula LeGuin began by writing, "There was a wall. It did not look important." She wrote that the wall represented, "... an idea of boundary. But the idea was real." A significant portion of the wall consisted of the communication barrier between two twin planets, Urras and Anarres. Urras represented a capitalistic, individualized society motivated by materialistic desires. Conversely, its twin planet Anarres represented a collectivist society which discouraged "egoizing." Neither of the cultures on the twin planets wished to establish communication with the other. There was, however, a physicist named Shevek on Anarres who travelled to Urras to "unbuild walls." By sharing ideas with the Urrasti and understanding the motivation behind their customs and actions, Shevek attempted to calm the fears about the Urrasti, a foreign people. If Shevek could dispel some of the fear, a significant portion of the wall would be broken. Shevek, aware of an existing barrier, was taking affirmative actions to establish communication with people whose customs were very different from his own.

Knowing that communication barriers are largely a result of fear and ignorance, we are left to wonder why such a problem persists. A majority of people can go about their daily routine in life and remain relatively unaffected by the problem of communication on a national and cultural level; thus, they do not acknowledge its existence. Also, people, as well as countries, are concerned that they project a strong, self-sufficient image to others. Treaty negotiations do not make as strong a statement on "power" as do missiles and nuclear arms. Thus, we are forced to maintain barriers.

= Politics and Government =

The Government and Politics section of The Open Mind is, by design, a forum to express controversial issues dealing with how our country is run and especially how we as citizens are affected and can affect the future course of the nation. At the North Carolina School of Science and Math, we have the potential to play an important role in the future of the United States. I hope this section will make you aware of some problems facing us now. I want you to become concerned, angry and opinionated, and I want you to express your beliefs. Only by becoming aware of the problems and discussing possible solutions can we make progress, and thus better our nation as a whole.

Tarus Balog



NUCLEAR FREEZE: A LITERAL DEFINITION

I want to remind you of a war. This war devastated most of Europe, unalterably changed world history, and has been called by some "The Last Romantic War". I speak of the Second World War, which brought about the age of nuclear weapons. Over two megatons of explosives were used in the six year period of the war. Two megatons is the average amount of explosive power carried in one nuclear warhead. I want to remind you of a war, and of the 13,000 megatons of nuclear weapons in the arsenals of the United States and Soviet Union.

If a two megaton nuclear warhead exploded over a fairly large city, buildings would be vaporized, outlying structures would be blown away like matchsticks, and human beings would be reduced to atoms and shadows. We have enough power to obliterate over a million Hiroshimas. What is the purpose of having this power since there are not a million Hiroshimas to obliterate. Thus, why the need for so many nuclear weapons?

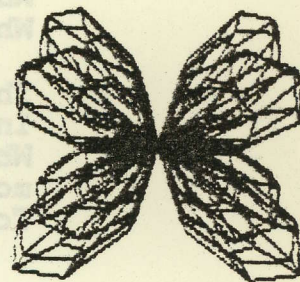
Studies now show that if a global thermonuclear war did occur, besides the death of millions and the destruction of civilization as we know it, the dust and debris caused by the destructive power of the nuclear warheads would rise into the atmosphere and blanket the earth in darkness. The earth would, literally, freeze. In the time it would take for the dust to settle, the cold and lack of sunlight would kill all photosynthetic plants. Thus, all surviving higher life forms would die of starvation. For the first time in history, man has the ability to cause the total extinction of almost all living species on the planet.

Some war theorists propose the fighting of a small scale or contained nuclear war. Suppose the war could be contained and only 100 megatons were exploded. The smoke from the resulting fires and devastation would cause a period of darkness and cold that would parallel the destructive power of a full scale war. It is a no win situation. In early nuclear testing, scientists underestimated the effect of nuclear explosions. Fallout was carried hundreds of miles farther than expected. What else have we overlooked?

These are the facts and figures dealing with nuclear war. I really don't like to think in numbers, they frighten me. I prefer to think in terms of human lives. Nuclear weapons kill people, lots of them. Those people could be you and me. Anything that kills people is wrong. There are no "buts" about it. Thus, why do we have nuclear weapons? I wish I could answer that question. We have set a deadly trap for ourselves. All we need to spring the trap is some madman at a button. I would like to leave you with one thought by Pink Floyd:

and as the windshield melts
my tears evaporate
leaving only charcoal to defend
finally i understand
the feelings of the few
ashes and diamonds
foe and friend
we were all equal in the end

Tarus Balog



THE MARCH OF THE UNKNOWN SOLDIER

The parade continues,
As they march into the light.
The unknown, the unnamed.
The black armbands absorb
The light of life
That was taken from them so
uselessly.

The unhomed.
Lovers grieve for that which they
once had,
But time and circumstance,
Robbed them of forever.

H-A-T-E

Why can't we live in peace?
Is not one man brother to another?
Why does Cain rise again against
Able?
(And God put his mark on Cain so
that none should harm him)
And God's mark was called War.
Hate too has a brother,
It is called Dispair.

Should we feel sadness, or anger?
All I feel is tired,
And a certain numbness,
As if a part of me has been cut
off,
But I still believe it is there,
Waiting to be severed anew.

Arms are for holding,
Not guns but each other,
Why must we be afraid to reach out,
When the world is crying.

The unknown, the unnamed,
In a ceaseless march skyward,
While the cement casket serves as a
monument,
To a cause long forgotten.

Tarus Balog
10-24-83

Letter to the Editor

November 14, 1983

"Bring our boys home" was on the lips of most Americans during past wars. One would think that the families of the men serving in Beirut, Lebanon, would be uttering the same words today, but this is not true.

The atmosphere around Camp Lejuene, North Carolina, is one of deep concern and sympathy for the families who lost loved ones over the past few months. I feel safe in saying that the majority of the people understand why President Reagan made the decisions he made. Now we can only become more unified in supporting those decisions.

Sure, I would rather have my father safe at home, but I also know that he joined the Marine Corps because he loves America and is willing to commit himself in defending our country. I can only hope that people will understand this commitment and support our forces stationed around the world.

Ginger Dudley

STUDENTS TAKE PART IN TV DEBATE MINUS HART

On December 9th, a cable network called C-SPAN offered students a chance to participate in a live television interview with Gary Hart. Hart, a candidate in the Democratic nomination for the presidency, was to be interviewed by students across the state on a program made possible by a grant from Cablevision of North Carolina, a subsidiary of American Television Corp.; in cooperation with C-SPAN and the Close Up Foundation.

Due to a problem with the landing gear, Hart's plane was forced to land at the Baltimore airport, and he was unable to make it to the studio. Nonetheless, the telecast went on as scheduled with Brian Lamb, president of C-SPAN moderating a discussion among the students concerning the various issues and candidates on the political scene today.

Opinions ranged from those who supported the less popular Democratic Candidates, such as Hart, Alan Cranston and Jesse Jackson, to those who supported the better known Democratic contenders, John Glenn and Walter Mondale. In a crowd where the vast majority classified themselves as Democrats, it was amazing that the majority also said that they, if eligible, would vote for Ronald Reagan in the 1984 election.

Of those who expressed a desire for another Reagan presidency, there were some who felt simply that the Democratic party had offered no viable alternative while others were indeed staunch supporters of the President's militaristic policies in Lebanon and Grenada.

When the discussion turned to the topic of national defense, the student's comments became disturbing. Time after time students stood up and said that they were willing to fight and die in service to their country. There seemed to be some kind of genuine belief among these kids that, indeed, they would be fighting and dying for freedom all over the world. These eighteen, nineteen and twenty year-old lives are to be snuffed out in the preservation of democracy. Yet the telling factor was when one of these self-declared "Nathan Hale-types" defended the presence of U.S. Marines in Lebanon by assuring us of the loss of the Suez Canal and some oil fields if we withdraw.

What today's high school students fail to realize, and what this student unwittingly pointed out, is that America does not fight wars to protect the freedoms of other people, but does, instead, fight to protect American business interests in other countries. Our concerns are not nearly as democratic as they are economic.

This can easily be seen when one looks to El Salvador or Guatemala where the U.S. government is backing two respective regimes, each of which has a deplorable record on human rights. Among the many atrocities attributed to the two governments are journalistic accounts of the Guatemalan government burning dissenters alive. Furthermore, one need only to look at the history of U.S. involvement in Central America and the Caribbean to see that the aforementioned accusations ring true.

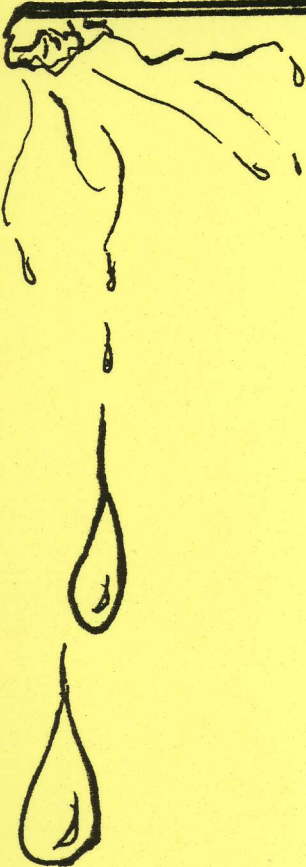
Fulgencio Batista, former dictator of Cuba, presided over a right-wing dictatorship that was both harsh and corrupt on a level comparable to Castro's present regime. Nevertheless, the United States government supported Batista, until he was overthrown in 1959, because, in Batista's Cuba, American business interests were served.

In Nicaragua, the U.S.-backed the Somoza dictatorship was so undemocratic and corrupt that even many of the businessmen and middle classes began to call for revolution. When the Somoza regime was overthrown in 1979 the CIA began to work immediately and by 1981 had organized counter revolutionaries (called "contras") in neighboring Honduras to facilitate the deposition of the now-established Sandinista government. This was done not to protect the rights of the people (Somoza had a lamentable record on human rights and the Sandinistas are almost as bad) but because in Nicaragua under the Sandinistas, American business is not welcome.

The evening ended on a particularly somber note. There was a phone call to the show from a man who had served a year in Vietnam. He told us how he had seen kids come to Vietnam with the attitude that they, too, were ready and willing to die for their country. A hush fell over the room as he told us how those same "kids" were sent home in body bags. When he finished, both doves and hawks sat in silence. One can only hope that they were deep in thought.

Ty Baldwin
Asheboro High School

LITERATURE

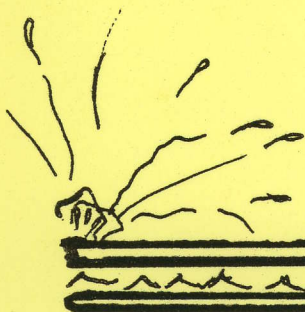


Welcome to the Literary Section of THE OPEN MIND. It is hoped that this portion of the magazine will serve as a creative outlet for the NCSSM community. Here the perspective contributor can critique his or her favorite literary work and/or showcase original works such as poetry and essays.

At this time the Editor wishes to thank the contributors to his section and apologize for not contacting more would-be contributors. This error will not be repeated.

Thank you and enjoy.

Darryl L. Peterkin



EDITOR for HIRE

Darryl L. Peterkin

That hackneyed adage "all that glitters is not gold" must have come from the lips of an disgruntled staff editor. I can think of no one else who better knows the masterful grip of pressure, the painful sting of frustration, and the feeling of achievement (and relief) than the section editor of a small magazine.

I am unable to recall when the fledgling publication THE OPEN MIND and the opening for a literary editor were made known to me. Almost immediately I saw it as yet another challenge for my restless mind. I hesitated, however. I had never occupied an editorship before, and I thought that such inexperience would hinder my effectiveness as an editor. In the end I was lured by visions of moderate authority—the silver lining in a most impressive cloud.

The first stage of my quest was fairly simple; I would acquire an application and sell them the best literary editor that never edited an article. The next stage was less enjoyable—the infamous interview. An interview is unique in that it enjoys the type of power most men will never have. It can paralyze whole groups of individuals and make or ruin the chance of a lifetime. One can imagine my surprise at having a casual-frighteningly casual-interview. Equally surprising was its educational value. It was then I truly learned about this new magazine and the job for which I was applying. "THE OPEN MIND," as it was explained to me then, "was to provide a creative outlet for diverse viewpoints on areas of current interest." The function of the literary editor was to "showcase critiques of literature as well as original essays by the readers."

Very soon afterward I learned that the editorship was mine, and that the organizational meeting was close at hand. That meeting was alive with the high-powered ideas of a brisk new staff. When it was over, we had been given our assignments and a deadline; and I couldn't remember why I had been so hesitant before.

My memory lapse was indeed temporary. I found it remarkably easy to secure a treasury of promises for submissions. But as the deadline hovered above me like a carrion-bird, I noticed how much more difficult it was to receive the actual goods. "I'm just too busy to write your article," and "I don't know what to write about," became two of mankind's most familiar sayings. My co-editors suffered similar afflictions. Our problems were supplemented by internal opinion differences and the occasional temper tantrums of the Vax. More and more frequently I found myself on the very brink of resignation; but that doggedly determined fool inside of me, the one who kept me from abandoning the School long ago, refused me retreat. "If you run now," he whispered, "you always will." I was bound to stay on.

Then somehow life was breathed once more into the publication. Long-awaited submissions began to filter in, staff conflicts found solutions, and the mighty Vax was again well. In the weeks that ensued, the maiden issue of THE OPEN MIND was molded into being. Finally, "our child" found its way into mailboxes campus-wide. The task, for the moment, was complete.

That was last year. This year THE OPEN MIND has the benefit of experience because a majority of the editors on this year's staff are last year's veterans who are cruelly aware of the pitfalls associated with publishing a magazine and can circumnavigate them.

Earlier, I spoke on the dark side of being an editor. There are, of course, benefits. An editor has the unique privilege of nurturing the ideas of others into a form appreciable by other individuals. And what can compare to the satisfaction of helping to make an idea a reality enjoyable by all?

Yes, an editorship is by no means a light undertaking, but I have no regrets—well, at least not that many.

FALL

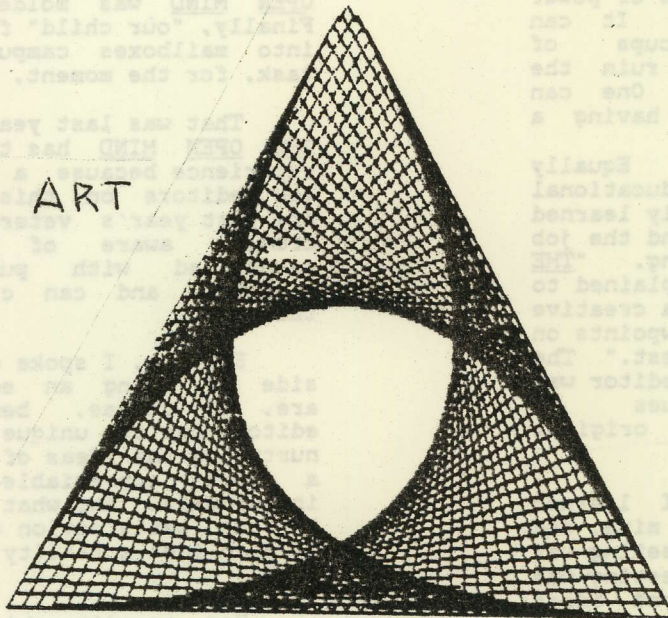
THE LEAVES UPON THE GROUND WE ROLL ON
ARE ALL IN THEIR PATTERNS OF RAINBOW COLORS.
WE THROW THE LEAVES AT ONE ANOTHER FROM A DISTANCE
BUT THEY NEVER SEEM TO REACH THIER DESTINATION
UNTIL THEY FALL TO THE GROUND IN A FINAL RESTING PLACE

THE LEAVES SEEM TO HAVE A MIND OF THIER OWN
AS THEY LOOK UP AT ME RESTING UPON MY BACK.
THEY SUFFER ALL THROUGH THE SUMMER IN THE SCORCHING HEAT
JUST TO PROVIDE US FOR THE LIFE WE LEAD.
ONLY TO FALL IN A FINAL ONSLAUGHT BY WINTER TO THE GROUND.

THE BEAUTIFUL COLORS THEY SET UPON THE TREES
ARE NOT QUITE AS BEAUTIFUL AS THE TIME WE SHARE UPON THEM
NOT JUST PLAYING
BUT MAKING LOVE UNTIL THE SUN SETS
AND OUR HEARTS TELL US WE MUST NOW GO HOME

S.MICHAEL CHAPMAN

STRING ART

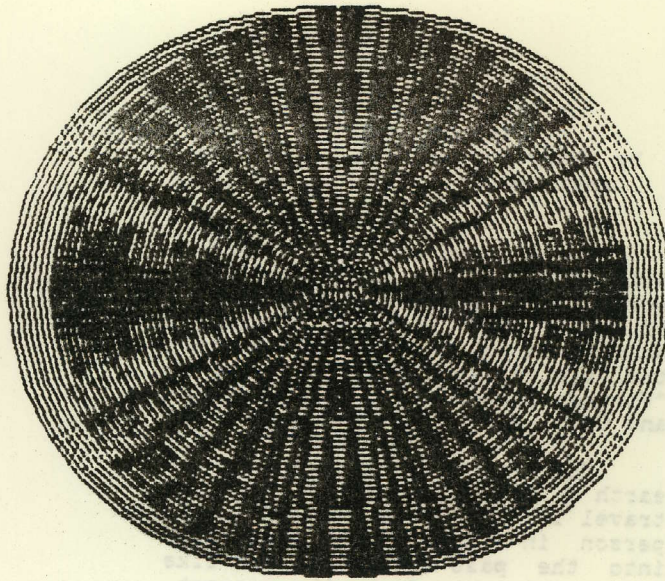


"Vintage Season"
by Henry Kuttner and C.L. Moore
(reviewed by Chris Middleton)

Suppose you had the power to eliminate all the suffering in the world at the expense of being able to live your life in pleasure. What would you do? This is exactly the ethical problem presented in "Vintage Season" by Henry Kuttner and C.L. Moore.

The problem is simple. In the earth's future a method of time travel is discovered. In fact, any person in the future can travel into the past on vacation-like trips. A man from the present, Oliver Wilson, discovers this fact when a group of these "tourists" winds up at his house, waiting for some major happening in the history of his world to occur and trying to get front row seats. In the end he finds that the great event is a huge meteor crashing into the earth. The crash and the following epidemic of "blue death" kill thousands. But the tragedy he discovers is that these people from the future have an inoculation against "blue death" and refuse to share it. The way of life in their age is very pleasant, and any major change in the past could alter that. So the ethical question confronting these people who have power over life and death is "should we sacrifice our way of life for the lives of thousands, or even millions throughout earth's history?" Their answer is "no." People who used to live simply have no meaning to them.

To Oliver Wilson, this judgement seems insensitive. He tries to convince his new friends that all human life is infinitely valuable and worth saving at any cost, but they do not listen. Their ethics, or relative values, do not concern themselves with yesterday's problems. Are their values different from ours?



INTERFERENCE

("How to get moire from the VAX")

PATHWAYS

In this dim existence
Images of the past loom in the background
While the mist steadily recedes before me
 precisely one-inch-before my footfall
New sights greet my expectant vision
Sounds appear from nowhere
Blurring into vague echoes
Only my memory is clear

A path draws itself as my feet blunder forward
Yours...it crossed mine sometime ago
And ran parallel...until we came to that rock
For you travel safely around the walls of this world
I set off away from them
 towards the center - obviously emotional risk
But I can't help meeting wall after wall
With nobody here to guide me.

/ Craig Steffee

Sanity and Insanity; To Be or Not to Be

Will Carr

In Tom Stoppard's play, "Rosencranz and Guildenstern Are Dead", the differentiating line between sanity and insanity is distorted. However, both yield a perspective of reality. The actual question is if one true reality exists or if it cannot exist because the idea that sanity and insanity cannot be quantified. Guildenstern, also called "Guil" raised this question very candidly in Act II. He replied to one of the players in reference to Hamlet's so called "madness", "A man talking sense to himself is no madder than a man talking nonsense not to himself." Hamlet often seemed to be talking to himself; but, from his point of view he had seen and spoken to his father's spirit. Of course, this behavior very easily gained him the reputation of being a madman. This play plays on the madness of Hamlet and erodes the clear distinction between reality and the surreal, or sanity and insanity.

A distinct incident that serves to disrupt the line between the real and the surreal is the tossing of coins in Act I. This gambling game between Rosencranz, also called "Ros" and Guil extraordinarily seems to break the instinctive assumption that a coin will come up heads as many times as it will tails. Therefore, a continuous series of heads is not feasible. Yet as Guil said, "(It is) a spectacular vindication of the principle that each individual coin spun individually is as likely to come down heads as tails and therefore should cause no surprise each individual time it does." Fate was an active participant in the determination of a coin toss.

Because a king's face is on the head of a coin a clear conclusion can be drawn. Ros and Guil's lives were centered around royalty and they happen to die before a king. The coin toss signified the inescapable reality that they could not free themselves from the shadow of the king's presence in the play. Thus, even the very real event of coin tossing has surreal implications which are difficult to explain.

In the perspective of reality and surreality Ros and Guil lived in different worlds ; in other words, they played many different roles. Like the child in Many Moons, who wanted to have the moon around her neck, they often made statements equally fantastic. Yet the statements fitted into one of their worlds. One player commented to Ros in Act I "Don't clap too loudly -- it's a very old world." As perceived by the reader this statement is outlandish, yet Ros did nothing unusual. Again in Act II a player reacted to Ros. He said, "Don't you see?! We're actors -- we're the opposite of people."

But in the discussion between Guil and the player this statement gives a new viewpoint because the player plays a character within a character and neither one is more real than the other.

Guil: Well ... aren't you going to change into your costumes?

Player: I never change out of it.

Guil: Always in character.

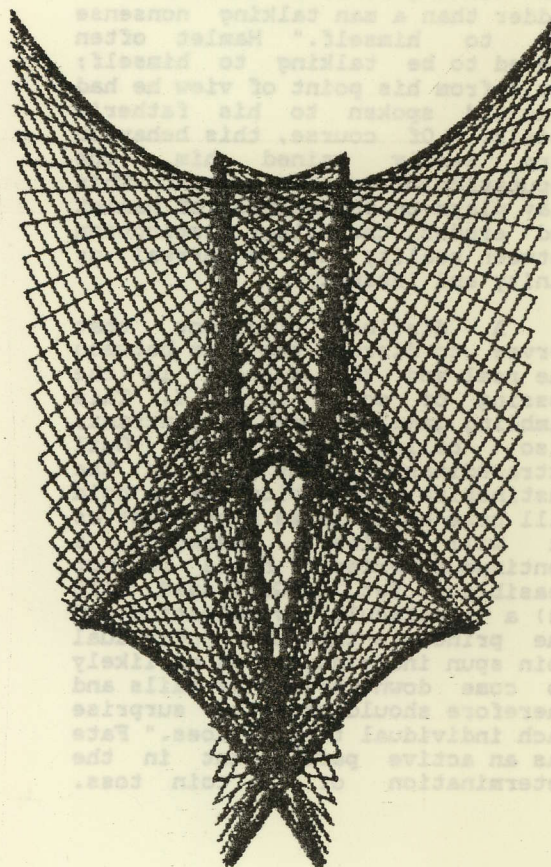
This implies that there is not a distinction between playing a role and living a role. Hamlet lived the role of one with thwarted ambition and deep grievance. After his grief had subsided, Hamlet played this role so well that

people still thought he was mad. In fact, Ros commented, "Half of what he said meant something else, and the other half didn't mean anything at all." Also, Ros said "A compulsion toward philosophical introspection is his [Hamlet's] chief characteristic, if I may put it like that. It does mean he is mad. It does not mean he isn't. Very often it does not mean anything at all. Which may or may not be a kind of madness."

Finally the relativity between reality and the surreal was brought out by a discussion between Guil and Ros in Act I about the existence of unicorns. This discussion dealt with perception, particularly imagination and the distinct factor that actuates the possibility that the surreal and the real can exist at the same time. In Guil's story a man sees a unicorn and when a second man sees the same thing this experience is as alarming as it will ever be. Guil said, "A third witness adds no further dimension but only spreads it [the story] thinner... And the more witnesses there are the thinner it gets and the more reasonable it becomes until it is as thin as reality, the name we give to the common experience.... 'Look, look!', recites the crowd. 'A horse with an arrow in its forehead! It must have been mistaken for a deer.'"

In conclusion, the ambiguity that exists between reality and surreality in "Rosencranz and Guildenstern Are Dead" is distinguished by perspective. This perspective reveals itself through the contrast between real people and actors in a play, probability and fate, and vision and imagination. This same type of perspective is used in the determination of one's sanity or insanity as was shown by Ros and Guil's evaluation of Hamlet's

situation. Though one's "true reality" may not exist as in the ease of witnessing the unicorn, one perspective can exist and most often reflect the most rational view of reality in respect to crowds. Like beauty is to the eye of the beholder, madness is to characters such as Ros, Guil, and Hamlet in "Rosencranz and Guildenstern Are Dead."





The concept of education is a very important one, especially here at NCSSM. After all, this school was established to provide superior education. With all of the interest in improving public education, the school and its students are constantly under the public eye. Because we're being looked at so closely as examples of what education should (or shouldn't) be, we should know something about education, too. Many of us have looked at the studies of how to improve education, most of which ask the same questions. "Who's at fault?" and "What specific things do we have to do to improve education?" are common ones. The essays in this section discuss education from views, which, although important, you may not have seen before. You may be surprised. You should be interested and you should enjoy what you find (especially if you approach this section with an open mind.)

Christopher Stanard

WHY WE SHOULD BE CONCERNED
ABOUT EDUCATION

Imagine a world without education. Such a world would have no technology, few if any creature comforts, short life expectancy, and little intellectual stimulation. Life in such a world would probably be dull, primitive, and dangerous.

Imagine your life in modern America with only an eighth grade education. Job opportunities would be scarce, and opportunity for advancement, pay, and job security would be low in the work opportunities you would most likely find. No doubt this contrasts severely with your current plans.

Education is important to the individual because it increases opportunities for high social status, high paying careers, power positions, and all of the other components of "success." To the nation and community it is important because it provides roads to higher standards of living and increased national security.

It also presents greater potential for ruin and destruction. Without education there would never have been a World War I, a World War II, or a potential for a World War III because the weapons of modern warfare (especially the atomic bomb) would never have been invented. Such an important and valuable gift must be used with care, discretion, and wisdom.

We are fortunate enough to live in a nation which provides free public elementary and secondary school education to its children. As residents of North Carolina, we, as academically talented students, are even luckier because we have the opportunity to

attend a special institution with superior teachers and facilities at the expense of the state. This must not be taken for granted or regarded lightly.

Because of our superior education and academic abilities, we have enormous potential to enhance our nation's stability and security, to ease human suffering, and to protect the natural environment.

At the same time, we can cause great damage if we try to advance our interests or influence at the expense of others. Many of us will attain the positions of power we seek. If we misuse or fail to use the knowledge we will have gained through education, the consequences could be severe.

Think of education as a bottle full of aspirin and of your future as a headache (hopefully it won't be). Without the aspirin, you cannot do anything to change the condition of your headache, which puts it out of your control. Having the bottle and not using it is even worse, for you've wasted money in buying the aspirin. The obvious solution is to read the label and take the recommended (safe) dosage, which may not make the headache disappear, but should bring at least partial relief. Lastly, you could abuse the aspirin, and take much more than the safe, responsible dosage.

Education, because of the potential that it provides, is very useful and powerful medicine. At the same time it is necessary for anyone who hopes to get a decent job. It must be given out freely yet handled delicately. At this special institution, this is something everyone needs to keep in mind.

CHRIS STANARD

Learning in Three-Dimensions

Nature's perfection lies in its ability to teach us through experience.

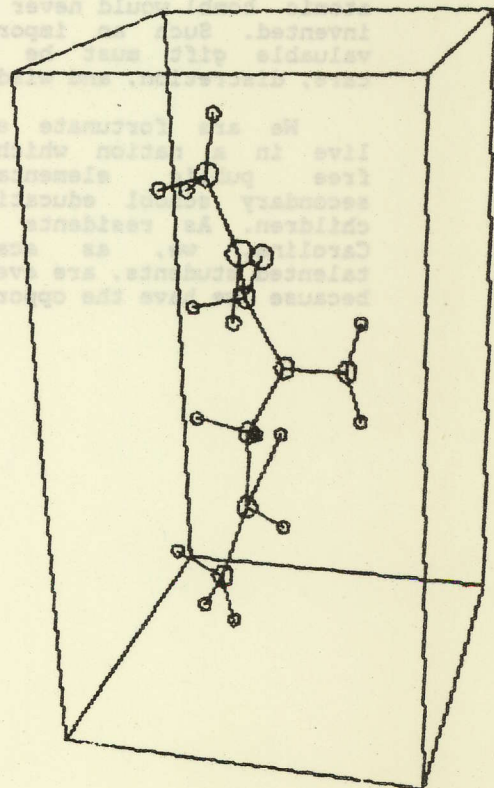
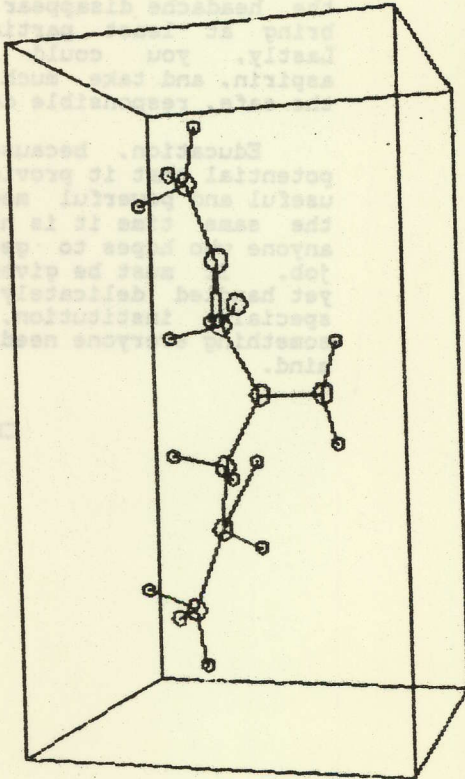
Practical experience is an integral part of understanding reality. We as students should use our knowledge to improve the conditions in the world today, but knowledge based on an understanding of textbook readings is not enough.

There is more to science and education than can possibly be mentioned in books. From my personal experience of assisting in heart surgery on a dog I found that internal body functions in three-dimensions are hardly comparable to text descriptions and two dimensional diagrams. The experience of viewing the convulsive, beating heart, the blood squirting out under pressure, and the rhythmic contraction of lungs was difficult to put into words or pictures. Few books, if any, describe how to cope with nausea that overcomes one in this situation.

This is all part of learning in a medical career. It's not surprising that many aspiring medical students change career plans in college when they are exposed to the "real world." Learning encompasses much more than knowing the text. It is also necessary to be able to tie it in with reality, which can only be done through experience.

Scientific works are someone's interpretation of reality or experience in print. The best interpretation of reality, however, comes through one's own experiences.

WILLIAM CARR



FOR A NON-ELITIST STUDENT BODY

I'm proud to be an NCSSM student. I like the educational opportunity, the independence, and the exposure that I receive here but would miss at home. I don't think I'm the only student here who feels that way. Unfortunately, however, some people seem to get carried away with this feeling.

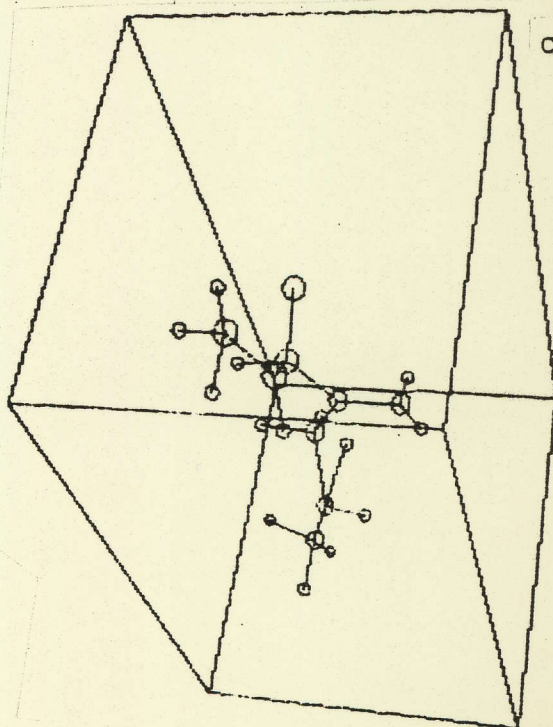
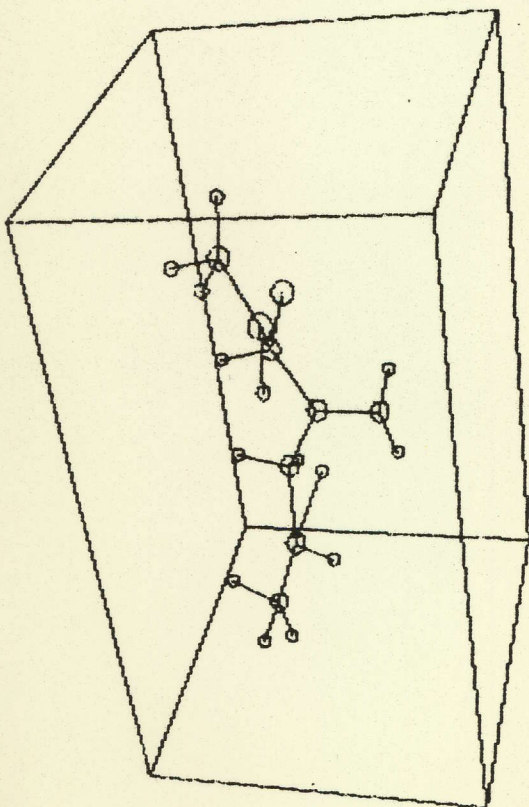
I suppose it's easy to feel excessively proud because you attend the North Carolina School of Science and Mathematics. After all, the computer, lab, and music facilities are all excellent, media coverage is almost constant, and students constantly excel in academic competitions. We also boast the Mentorship, Special Projects Week, and Babcock programs. Then there are the sports teams which, um, we have like other high schools.

Well, I don't think that that's quite enough to justify getting a swelled head about attending NCSSM. The results of a study released this January stated that education in North Carolina ranks in the bottom half of the states. Also, in a recent study conducted by the "Dallas Times Herald" American sixth graders were ranked sixth in science and seventh in mathematics among Japan, Sweden, Australia, England, Canada, France, Switzerland, and the United States.

Don't get me wrong, I don't think that American students are less intelligent than students in other countries. I just feel that most American students just don't take as great an interest in high grades, high SATs, or, more importantly, studying as most NCSSM students.

While I'm on the subjects of SATs think of all your friends back home who did well in school but didn't apply here. I know three people at home who scored 1400 or better but didn't apply to NCSSM. I know more who probably could have made it here relatively easily if they had wanted to apply.

It's not necessarily what you can do or where you go to school as how much you put into it and how much you get out of it. That SAT score won't help you past your freshman year in college (at least in most cases), and an NCSSM class ring won't keep you from flunking out of college, a fact to which a few graduates can tell you about from experience. At sometime in each of our lives someone from Diddlysquatch High or We-accept-almost-anyone University will almost certainly best us in something related to academics. Even though we are part of the cream of the crop, the best route to take is to work hard and do the best with what we have (which, here at NCSSM, is quite a lot) because there's almost always someone who can do it better.

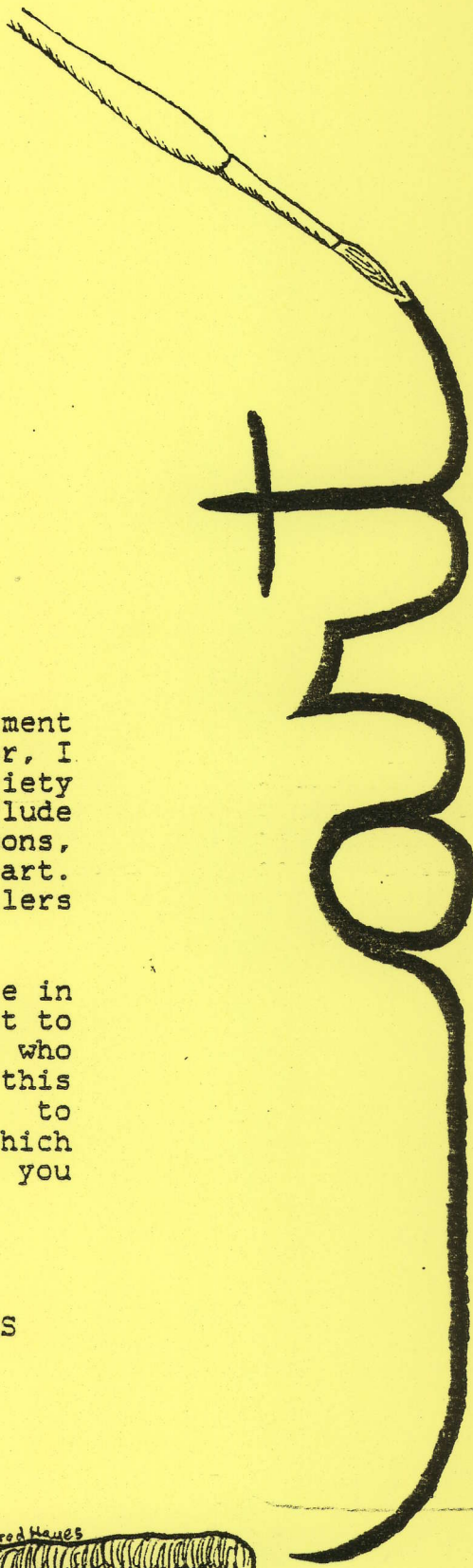
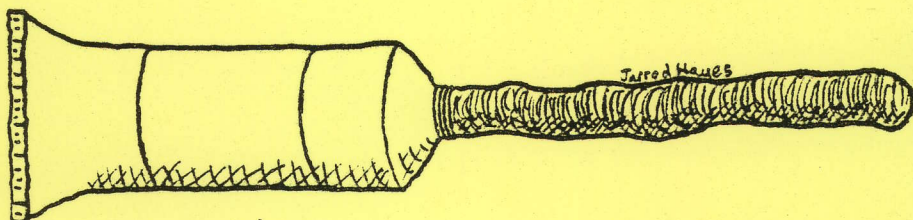


Chris Stanard

Welcome to the art department of The Open Mind. As art editor, I would like to encourage a variety of submissions. These may include art reviews, editorial cartoons, cover ideas, and essays on art. Artwork to be used as space fillers is also welcomed.

Art plays an important role in our culture. It is important to the artist as well as to those who merely enjoy it. In this department, I will attempt to explore all the possibilities which art has to offer, and I hope you will do the same.

JARROD HAYES



MODERN ART...IS IT A NEW IDEA?

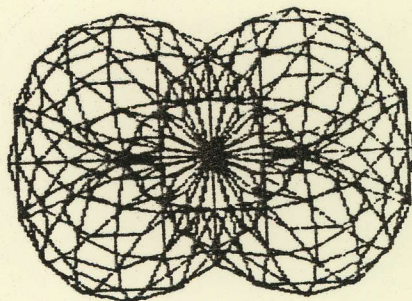
Occasionally, when looking at art, I overhear a skeptic who comments, "I could have done that" or, "my five-year-old son could have done as well as that." Is he right? Are we patronizing artists who are no better than the prehistoric men who produced the simple drawings on cave walls? No, we are not. There is something new about our art, something which makes it very distinct.

The first art forms we had were the cave paintings, very simple images of the prehistoric animals man hunted for food and clothing. As time progressed, so did art. Artists learned to make their art more realistic. Through ancient Greece and Rome and the middle ages, art began to resemble photography. Then, during the Renaissance, it seemed as if art could progress no farther.

However, the impressionists changed that. They were more interested in how to reproduce the way an object reflected light than how to make the painting look like the object. They produced works which, at first glance, may have seemed to be a step backward. Yet this new form of art did something better than others which had preceded it; it could portray moods and ideas. Men could now take photographs if they wanted pictures which were perfect reproductions of the image. Why should art perform the same task when it could do much more?

Later the impressionistic art became less and less realistic. Such artists as Picasso, Kandinsky, and other abstract expressionists progressed farther than the artists before them, using geometric figures, lines, squiggles, and even blotches instead of the conventional subjects such as still lifes, landscapes, and portraits. Any thing could be called art. Had the artists gone back to the days of the cave man? No, this new art did much more than the cave paintings or even impressionistic art; it portrayed ideas as well as images. The artists of today continue to do that. When someone looks at modern art, the art stirs an emotion in him. Sometimes it is powerful, sometimes weak. It is different with each person. Today's artists are finding more ways to express themselves than ever before. Modern art is very diverse, and it expresses abstract ideas and emotions through dramatically innovative visual stimuli.

JARROD HAYES



SCIENCE

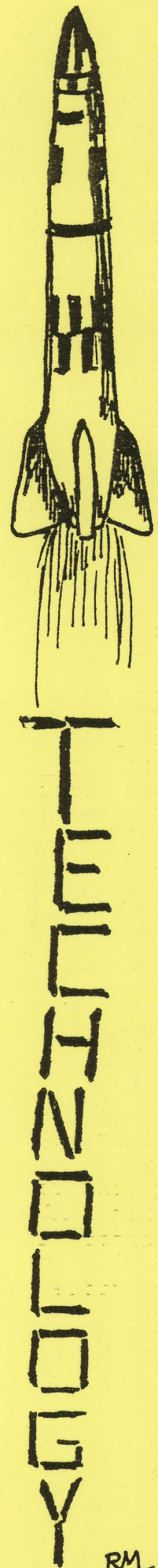


There are important questions that face scientists and students of science every day: questions of ethics, responsibilities, and scientific priorities. We recognize that these questions need open discussion among people with interests in science and developing technologies-- after all, the way we answer ethical and philosophical questions about scientific developments will certainly alter the way we live.

In this issue of the Open Mind, the Science and Technology department offers two short opinion pieces: one about the necessity for the "common man" to have some understanding of science and development, and the other arguing that the study of ethics must be incorporated into scientific education for it to be of any real value. In future issues, we would like to continue this format of presenting ideas; in addition, we are interested in hearing about original scientific research or thought that is going on at NCSSM. All members of the school community are encouraged to submit material to this department, either through VAX mail (to account OPENMIND) or by contacting me.

Welcome.

Barry Campbell



Is it possible to learn
Science without learning ethics?

In order to learn science, one must learn to perceive. This is where science begins; it is also where opinions and ethics begin. When you observe something, you do not see everything. You have to decide what is important and what is irrelevant, and in deciding what is important and what is irrelevant you are making a value judgement. Different people notice different things because they think that different things are important.

On the whole, each individual absorbs a large part of his or her values from society-- and there is consequently enough overlap of opinion to perpetuate itself and make science possible. Science is our best approximation of how the world works. We have developed "logic" and the "scientific method" not because they are intrinsically obvious, but because they have been found the best way to avoid and resolve contradiction-- which makes knowledge meaningless since observations from conflicting viewpoints tend to negate each other.

Science, therefore, is based on the "average" ethics, making it seem impartial-- however, ethics and science are one and the same, and neither can be learned without the other.

-- compiled by Dr. David Barr,
from last year's Saturday
Morning Horizons program.

Understanding Science
Phil Marsosudiro

Does the layman need to understand modern science and technology? This question concerns many of today's scientists, and some devote much of their time to finding an answer to this question. If you were to pose this question to any of our country's top physicists, biologists, or chemists, I believe that 99.9% of them would respond, resoundingly, "Yes!" But why? Isn't it good enough that only our upper echelon of minds comprehend the world's energy problems, for example, while the mundane and average members of society simply foot the bill and live happily ever after? No, I beg to differ.

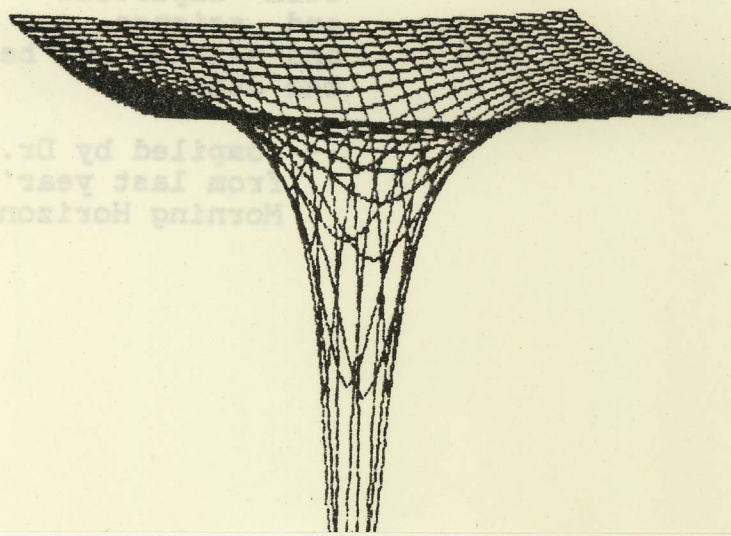
One of the main purposes of garnering scientific knowledge is to make life more pleasant and enjoyable for everyone-- not only the ultraintelligent who concern themselves with the mechanics of the solutions. How can one enjoy a game fully if he doesn't know the rules? The pretty little pieces and the spinning-wheel are cute, but what of the rest of the game? How could Pink Floyd's "Great Gig in the Sky" be fully appreciated without knowledge of its inspiration?

We stand not only to ensure the full appreciation of something through public knowledge and familiarity-- we enhance the possibilities of improvement. Without a fair understanding of the ideas upon which things are built, it is very hard to improve their quality. Want to make a car more fuel-efficient? You need to know enough about the principles of air resistance not to use bulky car-top carriers, for example.

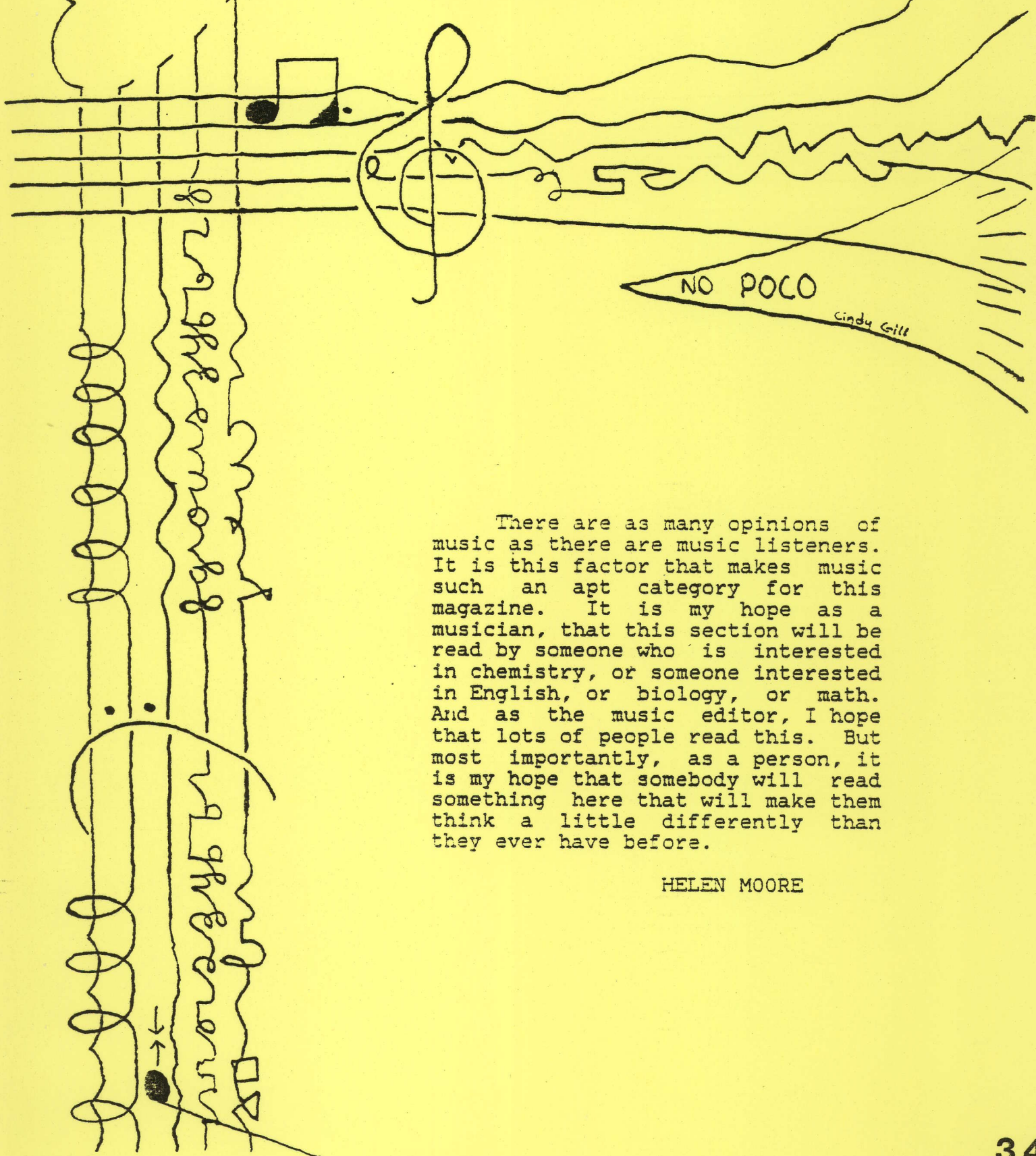
If the layman wishes to improve himself and his situation, he needs to learn about the world around him. This requires a conscious effort on his part, but the profits are well worth the effort.

The more people that understand science, the more rapidly it may progress. It's a safe bet that a thousand people working on a complicated problem will probably produce an answer more rapidly than ten people with otherwise roughly the same resources. When more people have a working knowledge of science, many problems can be solved more quickly than if society were relying on a knowledgeable few.

Our society has nothing to lose by the widespread dissemination of scientific knowledge-- and it has everything to gain.



Music: ?



There are as many opinions of music as there are music listeners. It is this factor that makes music such an apt category for this magazine. It is my hope as a musician, that this section will be read by someone who is interested in chemistry, or someone interested in English, or biology, or math. And as the music editor, I hope that lots of people read this. But most importantly, as a person, it is my hope that somebody will read something here that will make them think a little differently than they ever have before.

HELEN MOORE

THE CONCERT AUDIENCE

As a concert-goer, I feel I must take time to discuss that widespread, but seldom mentioned group, the concert audience. The concert audience contains a delightful myriad of attractions which I call "sub-shows." These sub-shows are one of the main reasons I attend concerts at all. If it were not for the unique activities of my fellow sitters-in-the-dark, concerts would be boring beyond belief!

I can remember the first concert I went to and the elderly couple that sat next to me. He had whooping cough and she kept shoving throat lozenges at him faster than he could catch them. Luckily, the lozenges were individually wrapped in crinkly cellophane. If they had all been in a case, that night would not have been half as fun.

I enjoyed my first concert so much, that I soon went to another. This time I was lucky enough to sit behind and a little to the right of a man and his little boy. It was not long before I had the toddler well-trained. When I stared at him, he did not move a muscle, but the second I looked toward the stage, he began to jump up and down in his squeaky chair. It is experiences such as this that make attending concerts memorable.

At a recent concert, I sat directly behind a charming young couple. The two lovers acted as if they had not seen each other in years. Needless to say, their public display of affection made the evening unusual, to say the least.

I've enjoyed the concerts with the elderly couple, the energetic toddler, and the affectionate young couple, but sometimes I worry: what would I do if I ever went to a concert where there was nothing to pay attention to but the concert itself?!

HELEN MOORE

SCIENCE AND MATH -- AND MUSIC !

At a place called the North Carolina School of Science and Mathematics, what would you expect to find? Well, for starters, my guess would be a lot of "math and science" hungry people. You could rummage around and find some test tubes, calculators, microscopes, computer terminals, etc. But if you looked (and listened) a little closer (behind the scenes), you would start noticing things like drum mallets, violin rosin, the sounds of cello scales, and you might say to yourself, "wait a minute, am I at the School of the Arts, by mistake?" Nope, you're still at the School of Science and Math.

The music program at NCSSM, made up of two instrumental ensembles (wind and string), three choral ensembles (including the Gospel Choir and Madrigals), an electronic music studio, and a chamber music program, impressed me a great deal. In fact, when I came here, it was one of the first things I noticed. Because music is so important to many of the students, it is necessary to insure a stable program that keeps a well-rounded atmosphere here. Randy Foy and Steve Hicken, both excellent teachers in their fields, work with the music students, preparing them for performances, recitals, and tours during and after class. The students are also given the opportunity (and encouragement) to take private lessons with music teachers in the community of Durham.

The possibilities and opportunities that our music program offers are exciting to many of the students. It's good to know that even at a math and science school, people take the time to study the cultural aspects of knowledge as well as the scientific.

JULNAR RIZK

RELIGION



Man did not become a conscious being when he first stood upright and learned to use tools, nor when he began attempting to explain natural phenomena such as why the sun rose and set, what the stars were, what caused eclipses and other events of his world. At this point in time he was little more than an intelligent mammal. Yet as his mind and thoughts evolved he began to ponder reality, morality, the limits of his perception and what lay beyond them, and other philosophies. Here man truly rose above the animals. No longer was he just an intelligent animal, but a conscious, curious being.

However, man could not satisfy his insatiable curiosity through philosophy; his abilities were too primitive (and still are) to be able to explain everything that he pondered. Though merely a defect of being finite and mortal, man still could not accept an incomplete understanding.

"Let there be God!!" man declared, and, since this being would have the ability to do anything, nothing would be inexplicable. (This does not mean that no God(s) exist; it simply attempts to explain how the concept originated.) However, because belief in a God or Gods is a personal conception it always depends on how one defines God.

Neither religion nor philosophy can be absolutely correct, because both are self-created beliefs. One can, however, always learn something from philosophies. The Religion and Philosophy department of The Open Mind is written for this purpose. Well written submissions dealing with controversial topics are encouraged.

Daniel Kemper

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EUTHANASIA

Euthanasia, or "mercy killing" as it sometimes called, is a topic that for many years has stirred controversy not only in small discussions but also in hospital board meetings and courts. Killing another person whether or not it is determined to be the best course of action in a "hopeless" case has and will always raise howls of protest from society. But, closer to home, a recent discussion called my attention to the views of other students about this controversial topic.

As an advocate of euthanasia, I believe that if a patient is being kept alive only by artificial means and he has previously expressed the wish to have life support machines cut off, the hospital or doctor should do so. If, however, the patient has not stated that he wants life-giving machines removed, but his family agrees that euthanization is in his best interest, euthanasia should be carried out. These cases state, in a nutshell, my point of view.

This is not to say that I do not see and understand the "other" point of view. The questions I have been asked numerous times include, "How can you tell if a person will die if the machines are cut off?" and "How can you determine whether or not death is imminent?" The answers to these questions do not come easily.

My response to them is simply this: In some cases, death cannot be predicted; however, in others death is obviously hovering overhead. If I were in a situation in which I believed that the patient would die, I would "pull the plug." If the patient stayed alive and functional, I would feel no remorse.

Another question that created quite a bit of thought for me was this one: "If you euthanized your mother, and then a few months later the doctors found something that would have cured her, would you feel guilty?"

My answer is two-sided, one might say. Yes, I would feel a touch of remorse for her unnecessary death. However, I would not feel overly guilty or agonize over the incident, because I had made the best decision at that time. If my mother's death was right at the time, I would not be extremely regretful.

There are thousands of other specific cases that must be thought out not only carefully, but practically and realistically. I still advocate euthanasia; however, I do not expect everyone to embrace the same viewpoint. To help decide where you stand on this issue, simply ask yourself, "Would I want to be euthanized?" For me, the answer is a straightforward "Yes."

Kathy Stewart

Why I Choose To Be A Jew

David B. Malin

Deciding to write an essay about why I chose to be a Jew was one of the hardest things I have ever done. I thought hard about my own belief and the question itself...choice...that's the key word. Is religion a choice? What are my obligations to my religion? To myself? To my family? I suppose it could be said that I took the easy way out of an impossible set of questions. I concluded that my foremost relationship with the world centers around my relationship with people. Judaism contains a break down of the guidelines on life. One aspect concerns the manner in which you treat God and the other aspect concerns your treatment of fellow human beings. It seems to me that God could probably care less if you went to services every Friday night as long as you were a good person. What constitutes a good person? I believe a good person is someone who treats others the same as he himself wishes to be treated.

Since Jews do not believe in an afterlife, the things you do while you are alive are the important ones. Life on earth is considered a one way trip. There is no coming back. Therefore, it is crucial to create harmony and peace while you are living.

As a twentieth century man, I must at least question God's existence. Where is He? What does He do? What do I mean to Him? Everyone has doubts. It makes me wonder when I see the stars just what is out there. As of yet, I have not answered for myself the question of whether or not God exists. The question of whether God created man or man created God is a very interesting one. I have taken the first step in my quest for personal identity by

acknowledging the changing contexts of my self perception. I only know what I want this world to be and how my Jewishness affects my perception. I may never settle the question of God's existence in my mind.

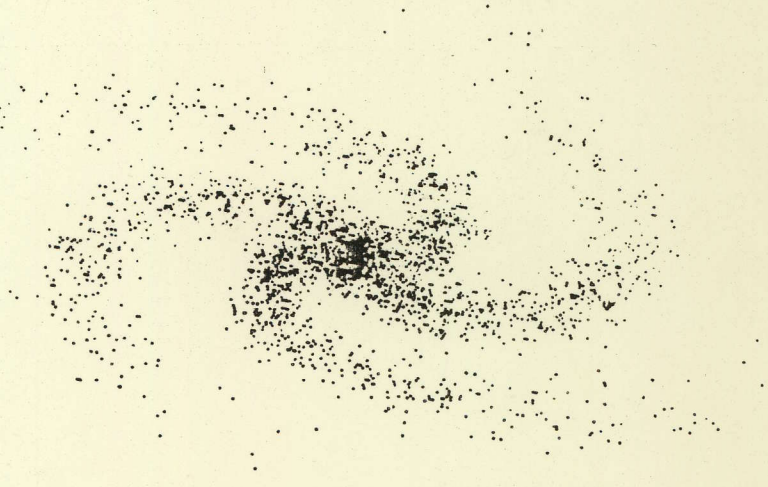
However, is it necessary for there to be a God? In the direction my belief seems to be leaning, God does not play a vital part in my relationships with people. I can be a Jew not only by the way I pray, but by the way I act as well. Interestingly enough, this could imply that, in my eyes, all my friends are Jewish because they are good people.

I chose to be Jewish because Judaism has a high ethical standard, a strong commitment to learning, and a matrix of ideas concerning belief. Being good and honest are the most important things in the world to me. I need to see myself as someone with integrity, honor, and unity. These things can not be bought or sold. Knowledge serves as a tool for bettering one's self and the world. It is the key to happiness. Understanding the world around you and being able to exist contently as part of a larger group constitutes wisdom. Flexibility and change are a vital part of survival. New ideas and better designs improve the quality of life.

I find Judaism to be the formula for getting the most out of life. Judaism is similar to calculus. It is a way of summing up and solving complex problems to attain higher lines of reasoning. Like calculus, it is dependent on subunits to make it work. People keeping Judaism alive, forming new thoughts, and exercising Judaism's ethics on the world keeps it an integral part of society. Constant growth and change ward off

stagnation. My relationships with others serves to maintain my intellectual curiosity. Judaism is a way of living. It is a way to create peace, a vital part of leading a meaningful life.

With all my new experiences, ideas, and friends, I have grown more than I ever dreamed of. I am content with myself as a human being. I have faith in myself and my beliefs. Judaism takes me into the world with a positive mental attitude to succeed. I am better than I was before because of the influence of Judaism's encompassing values which make the spirit stronger. By choosing Judaism, it seems that my innerself has blossomed into what a human should be. The problems of the world would be too hard to confront without a strong base on which stand. Judaism takes me beyond the physical problems of today's society. It allows me look beyond my own surface to evaluate my true self. Judaism is me.



GALAXY

Guidelines for Submission to The Open Mind

1. Articles will not be judged on the basis of what views are expressed. This is the reason for the journal's title. A certain open mindedness is required of the readers, who should realize that not everyone in the school community shares the same views.
2. Articles should be well written and contain clear reasoning. Remember that arguments based on material not presented in the body of the article will not be convincing.
3. Obscenity and personal attacks will not be published. Articles that attack an idea or institution without offering alternatives are discouraged. This journal should serve as a vehicle for thought-provoking commentary.
4. Work should preferably be submitted to the editor whose section is most related to the article's content; however, articles may also be submitted without specification of a particular section.
5. There are no minimum length requirements.
6. In addition to articles, letters to the editors are welcome.
7. All forms of creative expression (i.e. artwork, commentaries, reviews, etc.) are welcome.