THE COLLEGIAN

THE STUDENT WEEKLY AT ST JOHN'S COLLEGE ANNAPOLIS, MD FOUNDED 1888

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Yes, you pawns, we have been challenged. Annapolis Senior High School has put out the word. They're sitting in their classrooms, their chess(ts) all puffed out, thinking they can rook us out of our (a)trophy. So stop horsing around . . . do it toknight; to play this kingly game contact C. Stoll and arrange a joust.

R. Plaut

r.a.m. movie of the week

King Rat, directed by Bryan Forbes, and starring George Segal, James Fox, Tom Courtenay, and John Mills, is the RAM film for this weekend.

The locale of King Rat is a prisoner of war camp in Asia during World War II; but it is not a camp like David Lean's in Bridge Over the River Kwai where gentlemen strive to remain honorable despite mistreatment, hunger, and disease; nor is it a war camp as seen in La Grande Illusione, where a sense of patriotism and comradery is underlying.

The stars of King Rat are American entrepreneurs living off of their fellow prisoners. The "king" is their brash boss played by George Segal. H Alpert of Saturday Review stated very well that "Mr Segal manages to make, touchingly, the ironic point of it all: that hate, an emotion stronger than love, can help people survive." The picture is certainly about hate and survival. It attempts to state therein things about men, seeing the POW camp as a situation where they will revert to some sort of nature that is basic- but not lacking in humor, loyalty, and pathos.

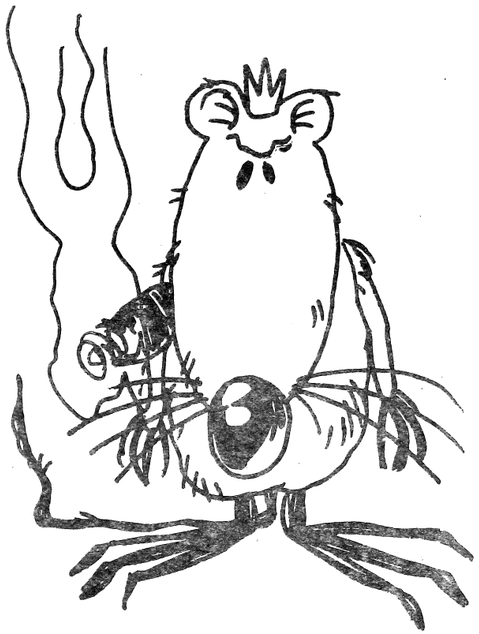
Lucy Tamlyn

There will be a meeting of the RAM film board this Saturday at 1 pm. on the quad. All persons interested in suggesting and choosing movies for this coming year are welcome to show up.

- G. Poissonnier

The Package room will be open the following hours:

aft. 12:30-1:00 Mon, Weds, Thurs
1:10-1;40 Tues, Friday
eve. 7:15-7:45 Mon, Friday



sometimes I think: "oh well,"

-But then again I don't know.

but, on the other hand...

-she wore a glove.

COLLEGIAN MOTION PASSES

The Collegian takes great pleasure in announcing that we have been kicked out of our office. We now reside in 213 Mellon. Don't try to call us, we don't have a phone, but do come up and see us some time. Although we have a name on the door, we don't have a rug on the floor; so if you have one just lying around, we'ld be quite happy to put it to use.

Da Editor

FIRST SEMESTER ART CLASSES

BASIC LIFE DRAWING
Wednesdays 7:30-10:30 pm
Instructor: Anne Geddes
Begins September 24
No Fee

BASIC OIL PAINTING
Saturdays 9:30-12:30 am
Instructor: Snowden Hodges
Begins September 27
Must provide own materials

BASIC POTTERY
Wednesdays 8:00-10:00pm
Room opens at 7:00 pm for practice
Instructor: Sandy Kabler
Lab Fee

If you have questions regarding the classes, either come to the art studio and ask us, or drop a note in the artist-in-residence's mail box.

Models for Life Drawing Classes will be needed every Wednesday from 7:30-10:30 pm. We pay $4.00 an hour for nude modelling, $2.50 an hour for clad modelling. No experience is neccessary.

If you are interested in modelling for classes, contact Sinclair Gearing or Anne Geddes.

The Student Woodshop (northwest corner of the power plant) will be open from 2-5 pm. on Wednesdays, Fridays, and Saturdays. Anything you know how to make with wood can be made in the Student Woodshop.

Materials must be provided by the student.

Roy Wieselquist

From the Health Center

I am asking anyone who has a car and is willing to transport patients to please give me your name and phone number.
Students wishing to see the College physician, Dr Kinzer, or Dr Rivers, the gynecologist, should call me for an appointment, at extension 53.
The Student Health Advisory Committee has two vacancies; anyone interested in serving on this committee should let your delegate of the Delegate Council or Dan Jerrems know.

Marilyn Baldwin Kyle
College Nurse

There will be a meeting to determine a class time of those interested in taking Mr. Sarkissian's Organic Chem. course at 4 on Wednesday, the 17th in room 21 (MacD.)

Andy Wisniewski

The Golden Arches of the Galaxy

Oh! You who wander the distant stars,
Who seek to bring day to the far-sleeping night
Wherever you go you always shall see-
Wherever men are men who are free-
A beacon which shines upon those who must fight
The Golden Arches of the Galaxy!
--Cadet Song, Hamburger Academy

"Captain, there's trouble off Mu Ceti. Apparently the Taurans have intercepted one of our supply ships."

"Sound the fall-to, ensign, and then resume your post. Five planets are depending on that ship for their burgers, and it's up to us to see that she gets through."

"Aye-aye, Captain."

In the late 2030s, space travel was up for grabs. Neither American voters nor Soviet workers saw economic necessity in it, and the few colonies which had been established on planets of nearby stars were no longer dependent upon ships from Earth. Besides, all astronautical agencies were bankrupt, because all Earth governments were. There was one force that thrived, however, one force that laughed at the economic plague toppling social systems and business empires like King Kong swatting the 7th Avenue El (he didn't even have to pay a token). One force alone that could not only sustain itself, but provide acceptable levels of employment, food distribution, and advertising material on a tightrope-walking world, and, since the inception of lightspeed in 1995, on the colonies as well.

"Fry 'em!" The golden beam lanced out, and a Tauran ship went down in a sizzling hot salvo. "Well done," announced the captain's voice. The Quarter Pounder was still badly outnumbered, but hers was the advantage of a double cheeseburger design-twin patties of 360 degree firing and piloting maneuverability, the rest encased in two diamond-hard buns. Again and again the beam shot forth. Two more Tauran craft went down to deep-fried defeat. One of them was downed by Bill Ferguson, only three months ago a senior graduating from the Academy. "Your first ship, kid?" asked Sam.

"Yes, and it really feels great. As if I really were- Great Mac, Sam, get down!"

When he awoke; Ferguson asked, "Are you alright, Sam?"

"He's dead," someone answered.

It was natural that the early colonists, divorced from Earth by a journey of decades, had brought with them the only thing which had overcome the centuries-old barriers of ideology and culture. Indeed, it was only the universality of this force that had prevented the abject nations from seeking recourse in global warfare. An organization which sold burgers for francs, pesos, and yen could see the petty delusions of nationalism. And where diverse peoples ate the same food every day, the other habits peculiar to each nation became charming, rather than cause for xenophobia. There were no significant differences left to defend. In 2042, brother's hatred for brother discarded in the toy chest of history, the urge for battle forgotten like a tank rusting in a sunlit meadow, man joined hands hesitantly, but then firmly. It was an era of blessing, though born of curse; of sufficiency, though not of bounty; of peace, of honest toil, of simple joy... and, after the United States paid its debt to MacDoland's by handing over its fleet of spaceships, one of exploration:

The Death of Harry Henson
Burg-O-Naut

The small craft touched down on the virgin planet. Harry opened the hatch and extended the ladder. Preparatory to making the first human step on this world, he threw down the javelin bearing the flag of the MacNited Nations, point first. The javelin stuck, then flew away. Strange, thought Harry. It almost looked like the planet spit the durned thing out! Undaunted, he climbed down the ladder and uttered the words heard in millions of MacDoland's (Over 16 trillion served) on a dozen planets: "One small step for a burgerman, one Jumbo step for MacKind!", and stepped onto the strange surface.

GULP!

"Grill 'em! Make 'em pay!" So shouting, Captain Roland MacDoland IV led the EVA party in his distinctive ancestral spacesuit. Taurans were pouring out of disabled ships, some firing upon the Quarter Pounder, the rest making a break for their remaining able ships. "Don't let 'em get away!" A blow from behind sent the captain reeling through a blackness indistinguishable from the depths around him; these stars he was seeing- were they in his head, or out there? His vision cleared; he whirled around, seized the Tauran by his horns; "You...deserve...a break...today!" he gasped through clenched teeth, kicking the Tauran in one of his four stomachs. (The Taurans are not so called because they originate from a planet inside the constellation Taurus, even though they do. They are actually bulls- but intelligent; as technologically advanced as Homo Mac, and even more peaceable, except where the slaughter of their innocent cousins on MacFederation planets is concerned.) Cashiers were everywhere, ringing up victory after victory. The subtotal was defeat, the price-surrender or death. Just as this battle occurred during the waning stages of the steeroid-humanoid conflict, it seemed to be nearing completion itself.

Suddenly, a craft like no other in the galaxy appeared- the El Toro, flagship of the tyranotaurus, Steeroid counterpart to the Great Galactic MacFederation's Grand Overmac! No matter; soon it, too, would be split open by the Quarter Pounder's infra-beams like a burger waiting for catsup and relish.

The process had reached its end. In half a decade MacDcland's had progressed from the cultural facet most likely to survive the shift from Earth to stars to the one leading the way; from the only game in town with money enough to build new lightspeeds to the only one with reason to do so- franchises. But MacDoland's huge capital reserves held a potential for expansion that lightspeed didn't even scratch; until 2050, no aliens had been found. Except for microbes and fungi, and they don't count, not even as material for burgers. It was in 2050 that taste technicians working on an improved secret sauce stumbled upon the particles known as tachytrophes (Gr., "fast food"), and on that day the stars were bequeathed to MacDoland's as sole and forever heir.

Closer and closer loomed the El Toro, her hide shedding the infra-beam's bolts with ease. In the shadow caused by her bulk swarmed the spaceworthy Tauran battleships; in minutes they would disperse and pummel the Quarter Pounder from all directions. As he viewed the giant ship gliding past him, Captain MacDoland could not help but think of the whale of ancient story for whom the fishburger, Moby Mac, was named. Was he still swimming the seas of Earth, that deathless whale?

Whenever man advances, whenever he steps on places not allotted to him, danger comes forward to press him back to where he came from. The white whale would never have been seen if sailors hadn't ventured far beyond the normal shipping lanes, where none but whales were ever meant to go...that's why it's ironic that he had a peg-leg...instead of standing on lush and solid ground...Earth... With a sudden burst of clarity, he felt himself in league with that other captain, across the centuries and the years-night's sail from those troubled waters.

Making his way back to ship, he ordered over suit radio, "Get out...Big Mac!"

Phil Reissman

Next Week: MacKind Adopts a Younger Bro.

Found in Music Library-
one dark blue leather wallet (no identification)
one volkswagen key
--music librarian

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The Bookstore

ON GALILEO'S USE OF EXPERIMENT
Note by H. Golding

I have submitted the article below for printing by THE COLLEGIAN especially for two reasons:

1. In the past I have heard from some tutors (perhaps as a result of their reading A Koyre on Galileo?) the suggestion that Galileo die not perform at least some of the experiments he mentions in the TWO NEW SCIENCES and particularly The one mentioned in Naturally Accelerated Motion, Proposition II, Corollary I (National page 212; Stillman Drake translation page 169). Exposure to criticism of this view seems warranted.

2. Junior laboratory students have read or soon will read the report of the experimented mentioned above. They may (should?) be interested in this careful attempt to duplicate what Galileo probably did and the results which may be obtained.

The students will perform later an experiment similar to it but will use Buck Rogers' equipment.
(A third, some what peripheral reason, for this printing, is actualizing my desire to have good copy drive out bad in The Collegian.)

Those interested in reading further on Galileo's use of experiment will find of interest:

Thomas Settle, "Galileo's Use of Experiment as a Tool of Investigation" in GALILEO, MAN OF SCIENCE, edited by E. McMullin, 1967, Basic Books, (pp. 315-337.) (I have a few copies of this article.)

and

Stillman Drake, "The Role of Music in Galileo's Experiments," SCIENTIFIC AMERICAN, June, 1975. Mr Drake alludes to relevant and recent SCIENTIFIC AMERICAN articles of his and to Mr Settle's article printed below.

A note on the page regerences:
Settle's (1, p. 171) corresponds to Drake's p.169.
Settle's (1, p. 154) corresponds to Drake's p. 153.

Enjoy!

An Experiment in the History of Science

With a simple but ingenious device Galileo could obtain relatively precise time measurements.

Thomas B. Settle

On the "Third Day" of his *Discorsi* (*1*) Galileo described an experiment in which he had timed a ball accelerating along different lengths and slopes of an inclined plane. With it he believed he had established the science of naturally accelerated motion. To get a better appreciation for some of the problems he faced I have tried to reproduce the experiment essentially as Galileo described it. In the process I found that it definitely was technically feasible for him, and I think I gained a good idea of the type of results he probably looked for and of how well they turned out.

He described the experiment because, in his words: "in those sciences where mathematical demonstrations are applied to natural phenomena, as is seen in the case of perspective, astronomy, mechanics, music, and others [,] the principles, once established by well-chosen experiments, become the foundations of the entire superstructure" (*1*, p. 171). In this case his aim was to establish a science based on two principles: (i) a general definition of uniform acceleration, "such as actually occurs in nature" (*1*, p. 154), as that motion in which equal increments of velocity are added in equal times and (ii) an assumption that "the speeds acquired by one and the same body

The author is a graduate student in the history department of Cornell University, Ithaca, N.Y.

moving down planes of different inclinations are equal when the heights of these planes are equal" (*1*, p. 163). Though he could not test these assumptions directly, he claimed that he tested consequences of them which, to us, seems to carry the same weight.

This is relatively straightforward. Though Galileo did not give us a sampling of his data, he did tell us what equipment he used, and did state explicitly that his results were very good. Since we know his "principles" were correct theoretically, we should have no reason, on the face of it, to doubt any of the particulars.

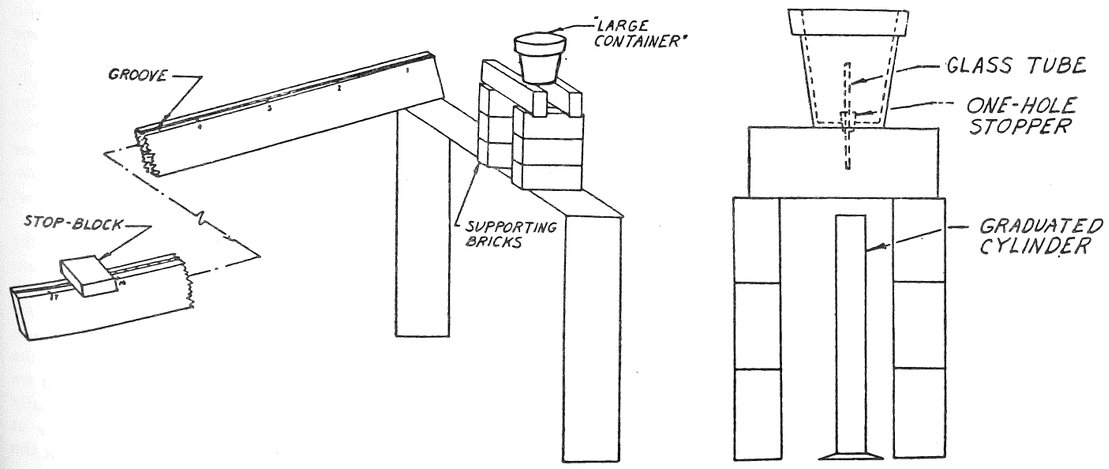
Yet they have been doubted. Before the publication of the *Discorsi*, Marin Mersenne had seen references to the experiment which lacked experimental detail. From these he had tried to perform the experiment; and because, probably, of a combination of conceptual and experimental errors, which we need not explore here, he concluded: "Ie doute que le sieur Galilee ayt fait les experiences des cheutes sur le plan, . . . l'experience n'est pas capable d'engendrer vne science" (*2*). Perhaps taking his cue from Mersenne, Alexandre Koyré has recently commented on the "amazing and pitiful poverty of experimental means at his [Galileo's] disposal": "A bronze ball rolling in a 'smooth and polished' wooden groove! A vessel of water with a small hole through which it runs out and which one collects in a small glass in order to weigh it afterwards and thus measure the times of descent (the Roman waterclock, that of Ctesebius, had been already a much better instrument): what an accumulation of sources of error and inexactitude!" (*3*).

An interesting conclusion, but I think a bit premature. To my knowledge no one has ever tried to perform an experiment equivalent to the one Galileo described. The laws of acceleration have been demonstrated many times with more sophisticated techniques; but no one, including Mersenne, has ever tried to find out if Galileo's wooden channel and water timing device actually worked, or what sort of results he accepted as the foundations of his new science. If these questions were merely of antiquarian interest we could leave them to the mercy of each individual's philosophic predisposition. But they are more; they weigh heavily upon, and are in fact basic to, any adequate evaluation of the logico-scientific status of Galileo's exposition of naturally accelerated motion, his real contributions to science, or his views on the nature of science and the need for experiment.

I hope to show that this experiment, once conceived and brought to full maturity, is simple, straightforward, and easy to execute. Thus far I can only reproduce the end product of a process of evolution (in Galileo's own mind) which may have covered 20 years. There is, in addition, a fascinating and vastly important body of knowledge concealed in the "conceiving" and "bringing to maturity" of both the theoretical and empirical aspects of this experimentation, just as in most other significant departure points in the history of experimental science. Eventually we would like to know the actual evolution of Galileo's thought in time as well as logic. For each step of original work we would like to know the mistakes and dead ends, the contributions and limitations of the existing technology and mathematics, the many conceptual aids as well as hindrances inherited from his contemporaries, and the nature and significance of his own predispositions. This could, we would hope, give us broader insights into the formative stages of any new discipline. But for now our aims are more limited.

First, let us see what Galileo himself says of the experiment (*1*, pp. 171–72):

> A piece of wooden moulding or scantling, about 12 [braccia (*4*)] long, half a [braccio] wide, and three finger-breadths thick, was taken; on its edge was cut a channel a little more than one finger in breadth; having made this groove very straight, smooth, and polished, and having lined it with parchment, also as smooth and polished as possible, we rolled along it a hard, smooth, and very round bronze ball. Having placed this board in a sloping position, by lifting one end some one or two [braccia] above the other, we rolled the ball, as I was just saying, along the channel, noting, in a manner presently to be described, the time required to make the descent. We repeated this experiment more than once in order to measure the time with an accuracy such that the deviation between two observations never exceeded one-tenth of a pulse beat. Having performed this operation and having assured ourselves of its reliability, we now



(Left) General layout of the experimental apparatus. (Right) The timing apparatus.

rolled the ball only one-quarter the length of the channel; and having measured the time of its descent, we found it precisely one-half of the former. Next we tried other distances, comparing the time for the whole length with that for the half, or with that for two-thirds, or three-fourths, or indeed for any fraction; in such experiments, repeated a full hundred times, we always found that the spaces traversed were to each other as the squares of the times, and this was true for all inclinations of the plane, i.e., of the channel, along which we rolled the ball. We observed that the times of descent, for various inclinations of the plane, bore to one another precisely that ratio which, as we shall see later, the Author had predicted and demonstrated for them.

For the measurement of time, we employed a large vessel of water placed in an elevated position; to the bottom of this vessel was soldered a pipe of small diameter giving a thin jet of water, which we collected in a small glass during the time of each descent, whether for the whole length of the channel or for a part of its length; the water thus collected was weighed, after each descent, on a very accurate balance; the differences and ratios of these weights gave us the differences and ratios of the times, and this with such accuracy that although the operation was repeated many, many times, there was no appreciable discrepancy in the results.

Then let us recognize what, exactly, Galileo sought, so that we will demand no more of his work than he did himself. Galileo thought in the language and form of Euclidean geometry. He had neither the apparatus of functional mathematics nor the interdefined system of standard weights and measures which would allow him to work with such a formula as $s = \frac{1}{2}gt^2$. He designed his equipment for less sophisticated use. In substance, he only asked it to show that: (i) for a given inclination of the plane, the distances a ball travels are in direct proportion to the squares of the time intervals (*5*):

$$S_1/S_2 = T_1^2/T_2^2 \qquad (1)$$

and (ii) for planes of different inclinations, the times of descent are proportional directly to the distance of travel and inversely to the square root of the vertical height of fall (*6*):

$$T_1/T_2 = (L_1/L_2)\,(H_2/H_1)^{\frac{1}{2}} \qquad (2)$$

This is important for at least three reasons. We must not ask him to give us a value for the acceleration due to gravity as we understand the term. Our "*g*" only came much later, after a great deal of further development in physics and mathematics (*7*). Nor should we expect him necessarily to give determinations that might be interpreted as an early form of the same thing. In addition, we see there is little justice in Koyré's criticism that Galileo failed to account for rotational inertia (*3*). Not only did the problem not exist in his mind, but it was irrelevant to the proof of his laws. The functional equivalent for

$$s = \tfrac{1}{2}gt^2$$

for a ball on an inclined plane is

$$s = \tfrac{1}{2}\,(5/7)(a/c)gt^2,$$

a/c being the ratio, for a given slope, of the vertical height of fall to the slope length. The factor 5/7 accounts for rotational inertia; being constant, it does not affect the proportionalities given above. Finally, because he could work entirely with ratios, Galileo could be completely arbitrary in his choice of measures.

Reproducing the Experiment

The most difficult part of executing the experiment lay in the necessity of choosing equipment and procedures which were available to Galileo or which were inherently no better than those he could muster. In making a plane, for instance, I assumed that he would have had excellent craftsmen at his disposal but that the work would have been done essentially by hand. Nonetheless, after choosing a 2- by 6-inch pine plank 18 feet long, with a straight grain and few knots, I had a ¼-inch rectangular groove cut in one edge with a circular saw (*8*). This done, I hand-sanded the surfaces, applied wood filler, and thoroughly rubbed in wax, making the rolling edges of the groove hard and smooth. Even so, there were irregularities where knots or the grain crossed the groove. But I made no further attempt to make the edges exactly parallel over the whole length.

I used both a standard billiard ball and a steel ball bearing, respectively about 2¼ inches and ⅞ inch in diameter.

For time measurement I used an ordinary flowerpot as a water container and threaded a small glass pipe through its bottom hole for the outflow. In all the live runs this pipe was 4½ inches long and had an inside diameter of about 0.18 inch. Its upper end was positioned high enough for me to cover it easily with a finger while my palm rested on the rim of the pot. Instead of collecting the water and then weighing it on a balance, I collected it in a graduated cylinder and "weighed" it by reading its volume in milliliters.

Then, for each reading, I placed a wooden block at a predetermined distance down the slope; filled the pot with water while holding a finger over the inside end of the pipe; filled the pipe by letting the water flow briefly; took an initial reading of the water level in the graduated cylinder; placed the ball at the starting position on the plane with my free hand; released the ball and lifted my finger simultaneously; replaced my finger at the sound of the ball striking the block; and took a final reading of the graduated cylinder.

How good was all this? From a study of the ratios we know that Galileo had to make only three measurements: slope length, vertical height of fall, and time. The first was easy; I marked off the plane in even foot lengths, using a 1-foot architect's scale. Actually, all either I or Galileo needed was a compass sufficiently large to mark off convenient unit lengths and sufficiently rigid to do it accurately. Then ratios of length turn out to be rational fractions.

Galileo did not mention how he measured vertical height, but water-level techniques for various purposes had been used in the building trades for centuries, and measuring heights would have presented no serious problem. I took a long piece of flexible tubing, fixed a short length of glass pipe in either end, and filled it with water. Placing the meniscus in one pipe at a mark near the lower end of the plane, I could measure vertically from the meniscus of the other pipe to a mark near the upper end. For each inclination we need only one such measure to compare with the distance between marks. The scales do not even have to be to the same base.

Of the three measurements, the measurement of time is the most controversial and the most difficult. With a little thought we find that it has two crucial aspects: we want the flow from the pipe to be uniform for at least the period of our longest readings, and we need to practice so that we can actually release the ball and the water flow at the same time and stop the flow at the strike of the ball without anticipation or delay.

First, we must remember that the operator is an integral part of the apparatus. He must spend time getting the feel of the equipment, the rhythm of the experiment. He must consciously train his reactions. And each day, or at the end of each break, he must be allowed a few practice runs to get warmed up. Galileo accomplished all this by repeating the experiment "many, many times."

Table 1. Sample of experimental results and calculations which confirm Eq. 2.

Distance	Time (ml of water) (Exp.)	(Av.)	(Cal.)
15	88	90+	90+
	91		
	91		
	90		
	90		
	90		
	90		
	90		
	89		
	90		
13	84	84	84
	84	base	
	84		
	84		
	84		
	84		
	84		
10	72	72+	74−
	73		
	72		
	72		
	72		
	72		
7	62	62−	62−
	61		
	62		
	61		
	62		
	62		
	62		
5	53	52	52+
	53		
	53		
	53		
	52		
	53		
	51		
	51		
	52		
	53		
	51		
3	40	40	40+
	40		
	40		
	41		
	39		
	41		
	40		
1	26		
	17		
	25		
	24		
	23		
	25		
	23	23.5	23+
	24		
	23		
	23		
	24		
	24		
	24		
	23		
	23		

Then we must remember that this is not a water clock; it is what it is and no more—a container for water with a pipe of small diameter in its bottom and with no dials, falling weights, or gear trains. All we are interested in, we find, is maintenance of a constant flow in the pipe for a maximum of 8 seconds. How can we test this? Galileo mentions a "pulse beat." Is it possible that he checked his own flow rate against a beating pendulum, a *pulsilogia*? On this hunch I made a simple pendulum out of a piece of thin wire and the billiard ball. Since a 1-meter pendulum has a beat of about 1 second, I made this pendulum somewhat less than a meter long so that it would beat at about pulse rate. By watching the shadow of the bob against vertically lined paper I could accurately lift and reset my finger in the timer at the end of a beat. I found, after collecting water at intervals of 2, 4, 6, 8, and 10 beats, that the flow was indeed constant within the limits of precision discussed below (*9*).

As a matter of interest, using the second-hand on my watch and timing for 5- and 10-second intervals, I made a rough determination of the rate of flow and found it to be 19.5 milliliters per second. It followed that, if I could measure a definite interval to within 2 milliliters, my apparatus would be precise to almost 1/10 second. In fact, it was very common to get sets of points well within this limit, to 1 milliliter or about 1/20 second. Is this better than Galileo could have done? My flowerpot was probably smaller than his "large vessel," giving me a greater fall of head for each reading. If my flow was "constant," his certainly was. Then the only thing in doubt is the "weighing." From Agricola we learn that early 16th century assayers could weigh with precision to the equivalent of 0.2 grams (*10*). My cylinder was graduated to 2 milliliters, and I read to 1 milliliter—a measurement five times as crude as the one that Galileo could have commanded.

We note further that Galileo, though presenting his results as valid for all slopes, only claimed to have successfully tested relatively shallow ones.

Table 2. Experimental data obtained with the billiard ball for the bases of three slopes, and times computed from one of the other slopes. *L*, slope length; *a*, vertical height; *T*, time.

Slope	Experimental data L	a	T	Calculated data T
a	12	2.92	117	118− (from b)
b	13	6.25	84	85− (from c)
c	9	11.47	52	51+ (from a)

Whether this was the result of experimental insight alone or of poor results obtained at steeper inclinations we do not know. But the reasons are obvious. The theoretical results are only valid if there is no slippage between the ball and the plane and since the errors in the time readings are fixed, the accuracy decreases with the shorter intervals. So I followed Galileo's example, nor did I think it particularly worthwhile to try to find a maximum practicable slope.

Experimental Results

As I have intimated, all this turned out quite well. Table 1 gives a representative sample of some experimental results and calculations which confirm Eq. 1 above. This particular run involved the billiard ball on a slope;

$$a/c = 6.25/(8\times12) \text{ inches},$$

or about 3°44′. The distances are given in Table 1, column 1.

Column 2 gives, for each distance, the several observed times in milliliters of water. In this case all except the last set were recorded one evening, this last being recorded the following morning. Here we see the process of warming up; only after the first six readings did I begin to take the results seriously.

Column 3 merely gives the sight-averages of the good readings of column 2. They serve as specific times for the distances where these are needed in further calculations or comparisons.

Column 4 shows calculated times. Whereas Galileo struggled simultaneously with two unknowns, the validity of the laws and the worth of the equipment, I was really using known and accepted laws to determine the latter. As a result I have chosen to focus on the most ticklish part of the

work, the time measurements, by comparing the experimental and theoretical determinations. For each run I chose the sight-average time for one of the middle-to-long distances as a base. Then, using the equation

$$T_1 = (S_1/S_2)^{\frac{1}{2}} \times T_2,$$

I calculated times for the other distances. Actually, we are comparing experimental points with points on a parabola passing through one of them.

This comparison needs little comment. Even the maximum deviation, at distance 10, is less than 2 milliliters, or 1/10 second. Elsewhere, by and large, the deviations are considerably less.

The check of Eq. 2 turns out just as well. To fit my data and purposes I reduced it to

$$T_1 = [(L_1/L_2)\ (a_2/a_1)]^{\frac{1}{2}} \times T_2,$$

a being a unit measure of vertical height. Table 2, columns 1–4, shows the pertinent experimental data, obtained with the billiard ball, for the bases of three slopes. Column 5 shows times computed, as noted, from one of the other slopes.

The results of the tests made with the steel ball were just as good, but I found that they were not comparable with those made with the billiard ball. For instance, on the shallowest slope, the billiard ball made the 16-foot mark in 136 milliliters but the steel ball took 4 milliliters longer. This seemed odd; theoretically, neither the mass nor the radius should affect the acceleration. By the correct formula we can calculate that both balls should have traversed the distance in 132 milliliters. Actually, because the balls run on the two edges of the groove, their "running" circumferences are slightly less than their real ones, so they require more revolutions, and more time, to cover the same distance. A rough calculation shows that this fact probably accounts for most of the discrepancies. Had Galileo noticed similar differences between results for balls of different size, he probably would have ascribed them to frictional retardation. In any case, it appears that they would not have controverted his proportionalities.

Conclusion

I have tried to emphasize the simplicity and ease with which these results were obtained. The only extended effort put into the equipment was with respect to the plane, and then only to the limits already mentioned. And except for the effort involved in developing my own ear-hand coordination, I maintained a deliberately cavalier attitude towards the procedures and measures. For instance: the striking block and the starting position were located at the marks on the slope only by eye; the vertical height reading was not taken as finely as more time and patience would have allowed; and, I am sure, the time measure was not brought to as high a polish as a larger pot, a smaller pipe, and a finer "balance" would have made possible. But with no more precise knowledge of Galileo's tools than what can be learned in the passage cited, I wanted to give "error and inexactitude" every reasonable chance to accumulate. And yet they did not.

What of this? When I said that Galileo worked with two unknowns, I meant it only from a logical point of view. By the time both the theory and the experiment had evolved to the level implicit in the *Discorsi*, Galileo would have had sufficient confidence in the worth of each independently, irrespective of their mutual confirmation. And the fact that they coincided so nicely added one more to the list of those sciences in which mathematical demonstration is appropriate to physical phenomena. But it was not as simple then as it seems now. Science could only grow on the bones of one of the deepest prejudices of the Middle Ages, one which regarded all here below as corrupt and innately lacking the perfection, mathematical or otherwise, of the real world. At one place in Galileo's other major work, the *Dialogo*, Simplicio is made to express this opinion by saying: "In physical science there is no occasion to look for mathematical precision of evidence" (*11*). By finding this excellent approach to perfection in the physical world, Galileo took a long and important step in this early phase of experimental science.

References and Notes

1. G. Galilei, *Dialogues Concerning Two New Sciences*, H. Crew and A. de Salvio, trans. (Northwestern University, Evanston and Chicago, 1946).
2. M. Mersenne, *Harmonie Universelle: Livre Second: Des mouvements de toutes sortes de corps* (Paris, 1636–37), p. 112. Mersenne, a Minim friar and close friend of Descartes, corresponded regularly with many of the leading figures of his day and was a physicist-mathematician in his own right. When he did the work described in *Harmonie* he had access to Galileo's published material—for instance, the *Dialogo* (see *11*)—and to circulating manuscripts, but probably not to the *Discorsi*, which was only published in 1638. Although Galileo had alluded to the experiment in several places, nowhere had he given the descriptive detail present in the *Discorsi*. We may even guess that the detail given there may have been in answer to Mersenne's criticism.
3. A. Koyré, "An Experiment in Measurement," *Proc. Am. Phil. Soc.* 97, 224 (1953).
4. Galileo used the term *braccio*; it has been translated variously as *cubit* and *yard*, to neither of which it accurately corresponds. In the *Discorsi* (p. 16) Galileo spoke of the fact that "it was not possible, either by pump or by any other machine working on the principle of attraction, to lift water a hair's breadth above 18 braccia." If 34 feet is assumed to be the equivalent in our system, 1 braccio should be close to 22.7 inches, a figure a shade higher than that usually given.
5. See G. Galilei, *Discorsi*, pp. 167–168, theorem II, proposition II.
6. See ———, *ibid.*, p. 181, theorem V, proposition V.
7. Conceptually, the acceleration due to gravity is considerably more advanced than the distance a body falls in the first second—a measurement which several of Galileo's contemporaries did try to perform. The first fits into a functional relationship with all the attendant transformation provided by the calculus; the second can only be used in calculation involving ratios of quantities subject to the same effects. The first is regarded as a special case of universal gravitation and is quite easily seen as a function of latitude, altitude, the presence of mass formations, and so on; the second, Galileo and his contemporaries generally regarded as constant over the surface of the earth and extending, only hypothetically if at all, undiminished to such locales as the moon. Galileo had not abstracted the notions of velocity and acceleration as quantitative entities in themselves (instantaneous velocity and acceleration), notions which "fell out in the wash" with the development of the calculus. He thought of motion in terms of total distance as compared to total time, and of acceleration as the uniform increase of "motion" from one large segment to another—that is, he talked only of total distance and time and of ratios of them.
8. Galileo did not describe in detail the shape of the groove he used or how the ball (or balls) fitted into it. I assume that he rolled the ball on the edges of the groove, as I did.
9. Each time, in filling the pot, I referred the water level to a definite mark, making it somewhat lower for the short runs and slightly higher for the longer ones. I believe, though without definite proof, that this sort of compensation was not beyond the level of Galileo's capacities.
10. G. Agricola, *De Re Metallica*, translated by H. C. Hoover (Dover, New York, 1950), appendix C.
11. G. Galilei, *Dialogue Concerning the Two Chief World Systems—Ptolemaic & Copernican*, S. Drake, trans. (Univ. of California Press, Berkeley and Los Angeles, 1953), p. 230.

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Submitted by H. Golding

theatre news

There will be an organizational meeting of the King William Players next Wednesday, the 17th, at 7:30 in the Conversation Room. We will discuss the new charter and begin planning this year's productions. We would like to hear from everyone interested in writing, acting, directing, or otherwise joining the theatrical world of St John's College.

TW Hendricks

ΔΕΙΠΝΟΣΟΦΙΣΤΑΙ

The Deipnosophists, or Learned Banqu - eers- St John's only group of people steadfastly dedicated to the unflagging pursuit of the one, true liberal art, i.e. the art of Good Living- intend this year to push their explorations of the realm of "splendid insensitivity" to the ultimate Numerous extravagant symposia involving the consumption of vast quantities of wine and food are in the offing. Anyone interested in joining in the festivities please contact me through the campus mail or call 263-9127.

Bill Randolph

There will be a meeting for all persons interested in learning and playing the game of go this Tuesday evening at 7:30 pm in the coffee shop. Go is a Chinese-Japanese board game.

All you people who want some Eastern intellectual activity have had your fondest dreams fulfilled. Come and learn to play.

--C Stoll for the Go Club

MODERN DANCE CLASSES

This year the Annapolis Association for Contemporary Dance is offering a class in jazz dancing as well as classes in Graham technique. These classes will be held on Tuesdays in the backstage area of FSK, and, as usual, there will be a 1/3 reduction of tuition for St John's students. Registration and class schedule are as follows: Registration: Tues., Sept. 16 1-3 pm, 6:45-7:30 pm

Classes: Jazz 3:30-4:30 pm
Elementary Graham Technique 7:30-8:30 pm
Advanced Graham Technique 8:30-10:00 pm

For further information, call 268-2919 or 268-8838, or come to registration in FSK. If you're interested, get in touch with us soon; classes start on Tuesday, September 16.

-- Veronica Skinner

Edifice Wrecks -- A play with no acts to grind

by Robert Levy

Cast-Off Characters

Rosencrantz and Guildenstern,
(a female impersonator)
Connors and Evert, (mixed doubles)
Home, (a place to hang your hat)
Bertrand Russell, (a scat singer)

(The audience is composed of the spectral apparitions of the GREAT PHILOSOPHERS. Present are the etheric doubles of such dialecticians as PLATO, ARISTOTLE, DESCARTES and DICK CAVETT. The curtain rises on the quiescent campus of St John's College as the early morning sun shines over Annapolis. PRESIDENT WIEGLE is asleep on the quad and looking quite snug in a pair of Dr. Denton's. All the buildings on campus have gathered in a circle about the somnolent figure. Looking serious and solemn they are preparing to discuss an important subject. McDOWELL HALL, the senior edifice in the grouping, sits glumly puffing a meerschaum pipe of smouldering Cavendish. RANDALL HALL, puffy-eyed and red-nosed, reeks of Benedictine... PINKNEY looks detached and uninterested... MELLON HALL sneers and lights a Camel while PACA-CAROL has fallen asleep. The discussion opens with the rap of a gavel...

McDOWELL HALL (in brusque, stentorian voice): Well gentlemen, I suppose you are all wondering why I have called this meeting at such an early hour.

RANDALL HALL (obviously blotto): Yesh... yesh indeed... hic... excush me...I would shertainly like to know...

CHASE-STONE (retrieving his pince-nez which has slipped into a tumbler of Perrier water): Yes quite old man. Ahhrrrmm... I think all of us would like to get on with this business. We've all busy schedules and I for one would opt for expedience in this matter. Procrastination is the thief of time and all that... besides I have a rendevous with a houri who is, quite frankly, stacked like the Great Pyramid. (The aforementioned femme fatale enters stage right. It is CAMPBELL HALL; a comely blond structure piled into a tight cashmere sweater. Her entrance halts the discussion and the other buildings are all stairs. She seats herself, hoisting her skirt as she does so, a flourish which leaves CHASE-STONE quietly choking on his mineral water, and places her thirteen volume O.E.D. to her right)

CAMPBELL HALL (combing out her tresses): Ohh hi boys! So sorry I'm late but I do hope you'll forgive me. (a chorus of breathy affirmatives echo round the table) Oh thank you... you're all dears.

RANDALL HALL: Hi toots.

CAMPBELL HALL (turning the other facade): Don't talk to me you Neo-Georgian Casanova!

McDOWELL HALL (taking command): Well, enough schmoosing...now down to business. That man who sleeps so peacefully before you in outlandish pyjamas is the cynosure of the onerous matter which I must make manifest today. (PACA-CARROLL snorts loudly in his sleep and rolls off his seat and into College Creek. He does not awaken) President Wiegle has, for the past year, been threatening the buildings on this campus with numerous renovations that are as ludicrous as they are unecessary.

WIEGLE (talking in his sleep): Mmmpppfffr ...Boola boola, Boola boola, Goooo Bulldogs!..Mmmpppfffrrr...Zzzzzz.

CAMPBELL HALL (polishing her nails): Hmmmpff...a Yale man.

McDOWELL HALL (ignoring the sneer): As you know he planned to add a wing on to PACA-CARROLL and the drilling would be certain to keep poor HUMPHREY'S in constant agitation. It was only an attack of rheumatism that kept her from today's meeting. This isn't all, fellow buildings. The clincher is his plan to move the dining hall to the IGLEHART GYM.

CHASE-STONE: Preposterous of course! But where is IGLEHART? I don't see him present.

McDOWELL HALL: No I'm afraid he had a lacrosse match today and couldn't make it. But the upshoot of all this is what to do about this fiend Wiegle.

WIEGLE (still asleep): MMMpppfffrrr... disgraceful the way the studentry dressed for lecture night...showing up in nothing but cravats...collegian a scandal sheet...a penny dreadful of smut and porn...won't send anymore to Board of Directors...keep them all for myself... Yummm.

CAMPBELL (putting in contact lenses) That man is utterly revolting.

WIEGLE (suddenly awake and in a seersucker suit) You ain't seen nothing yet. My ruddy-hued face attests to the fact that I've been running myself ragged trying to get the scratch to keep this little nuthouse in the black. (showing blueprints) Here... this is the deal...give a look and if you see something you like we can talk price.

McDOWELL HALL:Nothing doing.

RANDALL HALL: Sour grapes to you Uncle Wiggly!

WIEGLE (golf bag slung over shoulder and tennis racket in hand) Sorry boys but now that I've collected my equipage its off to Santa Fe where I'm considering moving the lecture hall into the men's lavatory...considerable saving in space and walking distance. So long and ciao! (he pivots and steps into a waiting Piper Cub. The architecture looks nonplussed.)

McDOWELL HALL (defeated) Defeated.

CHASE-STONE (cheery) Nonsense old boy. We tried and that is what really matters. Let us now to my place for some rounds of Drambuie to soothe the pain of the ignominious drubbing. (all the buildings heartily agree and run off the stage in different directions. The audience applauds.)

VOICE OFFSTAGE: Quiet! You'll wake the actors! (PACA-CARROLL runs on stage, dripping wet, just as the lights go out. The electrician replaces the fuse and the lights come up again, this time on the audience where PLATO, ARISTOTLE, DESCARTES, and CAVETT are seated around a bridge table. PLATO deals three cards to himself, one to ARISTOTLE, seven to DESCARTES and none to CAVETT.)

PLATO (checking his hand): O.K. Go fish.

ARISTOTLE: Gin!

DESCARTES: I've got the Old Maid.

CAVETT: Can you beat a straight flush?

PLATO (pedantic): Obviously we are all engaged in a different game so let us chuck the whole deal. By the way Aristotle, what did you think of the play?

ARISTOTLE (dissecting a guinea fowl): Well as I've said... a play must have a beginning, middle, and end. This work was lacking in all three categories.

PLATO: And you Cavett?

CAVETT (tearfully eyeing a strip of celluloid on which his old series was taped): Let's not cry over spilt milk. (DESCARTES tips over his milk glass, begins bawling and exits)

PLATO: This is dragging on a bit.

ARISTOTLE (peripatetic): Oh you and your Ideas! We should never have come here. Besides, I'm not dressed for it.

PLATO (unctuos): Well Ari...I know a quiet little pub where we could get some ouzo...then to my place for a nightcap...a little soft music...and then... well,who knows...

ARISTOTLE (winking): Ooooo...you are the sly one...certainly let us go down into Piraeus. (they leave arm in arm)

CAVETT (wild-eyed and sensing a comeback): Now for our first guest; Elliot Gould! (The curtain falls then springs on CAVETT chasing him offstage.)

ELLIOT GOULD (entering) Dick? Oh Dick? (The lights dim as it begins to snow... the end.)

* the author wishes to express his thanks to Frank Lloyd Wright for making this all impossible.

Mr. Norman Iglehart will be arriving at 6:30 by the gym Wednesday evening, the 17th, to "call" for an all campus square dance. -We will come around for collection.

Ted Nelson

concert

On Friday, September 19, the College will present in concert the Apple Hill Trio. They will perform the trios of Mozart, Beethoven, and Dvorak.

The Apple Hill Chamber Players, of which the trio is a combination, are housed on a hundred-acre farm in Southern New Hampshire and here live and work year round as faculty members at the Center for Chamber Music. The players coach small groups of students that attend the Center's summer session and shorter weekend sessions throughout the year. The group first began performing together with a series of concerts in neighboring New Hampshire towns in 1972. Since that time, the group has travelled regularly to the major cities of the Northeast, presenting more than fifty concerts a year.

The trio consists of Beth Pearson, cellist, Robert Merfeld, piano, and Mowry Pearson, violinist. All three are graduates of Oberlin Conservatory, with Mr Merfeld holding a Masters degree from Juilliard. They have performed extensively in New England.

The concert, at 8:15 pm in FSK, is free and open to the public.

Music Library

Profile: September 1975 Freshman Class

(Percentages except for Rank in Class and SAT scores based on total class of 107.)

Number of Students	107	
Men	69	(64.5%)
Women	38	(35.5%)
National Merit Honors	39	(36.4%)
Scholars	2	(1.9%)
Finalists	12	(11.2%)
Semi-Finalists	5	(4.6%)
Commended Students	20	(18.6%)
Early Entrance	2	(1.9%)
Previously Attended College	36	(33.6%)
Veterans	2	(1.9%)
Kind of School Attended		
Public	77	(72.0%)
Independent	19	(17.8%)
Parochial	11	(10.2%)
Receiving Financial Aid	36	(33.6%)
Age (at time of enrollment)		
Sixteen	3	(2.8%)
Seventeen	22	(20.6%)
Eighteen	45	(42.0%)
Nineteen	16	(14.9%)
Twenty	5	(4.6%)
Over Twenty (Oldest is 65)	16	(14.9%)
Visited	70	(71.8%)
Before decision	52	(48.5%)
After decision	18	(23.3%)

Twenty-eight States Represented:

Maryland	20	(18.6%)
Pennsylvania	13	(12.1%)
New York	11	(10.2%)
Virginia	11	(10.2%)
Illinois	6	(5.6%)
New Jersey	4	(3.7%)
California	3	(2.8%)
Florida	3	(2.8%)
Michigan	3	(2.8%)
Connecticut	2	(1.8%)
District of Columbia	2	(1.8%)
Georgia	2	(1.8%)
Kentucky	2	(1.8%)
Maine	2	(1.8%)
Massachusetts	2	(1.8%)
Mississippi	2	(1.8%)
North Carolina	2	(1.8%)
New Mexico	2	(1.8%)
Texas	2	(1.8%)
Washington	2	(1.8%)
Wisconsin	2	(1.8%)
Alaska	1	(.9%)
Arizona	1	(.9%)
Delaware	1	(.9%)
Indiana	1	(.9%)
Missouri	1	(.9%)
Ohio	1	(.9%)
South Carolina	1	(.9%)

Two Foreign Countries Represented:

Iceland	1	(.9%)
Turkey	1	(.9%)

If you know of any prospective students, teachers, or guidance counselors you think may be interested in St. John's, send me their names and addresses and I will send them informatic about the College. Thanks.

Joanne Aitken

Name_____ Prospective Student?

Address_____ ___Yes ___No

Name_____ Prospective Student?

Address_____ ___Yes ___No

Sent at Request of:_____

1975 FRESHMAN CLASS

Philip Corbin Allardice
Alexandria, Virginia

Marjorie Susan Allison
Bethel Park, Pennsylvania

Karen May Anderson
New Milford, Connecticut

Bruce Joseph Babij
Boynton Beach, Florida

Faton Alain Bacaj
Alexandria, Virginia

Julie Ann Berg
Atlanta, Georgia

David Arthur Berger
Great Neck, New York

James Whitehurst Black
Albuquerque, New Mexico

Todd Campbell Bobo
Clarksdale, Mississippi

Christopher Daniel Borden
Annapolis, Maryland

Katherine Joan Buck
Fairfax, Virginia

Edward Joseph Burgess
Flushing, New York

John William Burke
Auburn, Massachusetts

Jennifer Judith Burns
Wilmington, Delaware

Ellen Marie Byrnes
Ann Arbor, Michigan

Michael Jeffrey Case
Reynoldsburg, Ohio

Rhonda Alexa Chocha
Chambersburg, Pennsylvania

Carol Ann Colatrella
Jackson, New Jersey

Alan John Cook
Atlanta, Georgia

Scott Michael Cooper
Ossining, New York

Bret Finley Cope
Issaquah, Washington

Robert Patrick Covelli
Huntingdon Valley, Pennsylvania

Anthony Macy Bovingdon Cox
Washington, D.C.

Frederick Giffard Cox
Scarsdale, New York

Stephen Melvin Crampton
Pioneer, Tennessee

Jeffrey Charles Crigler
Arlington, Virginia

Mary Elizabeth Caufield Cumming
Annapolis, Maryland

Jennifer Brooke Diamond
Tucson, Arizona

Catherine Claiborne Eldridge
Washington, D.C.

Michael Vallette Elliott
Kennebunkport, Maine

Nathan Ames Ellis
New York, New York

Robert Dow Evans
Baltimore, Maryland

William Henry Sage Fant
Holly Springs, Mississippi

Julie Virginia Farrell
Keflavik, Iceland

Mark Alan Forrester
Wheaton, Maryland

Heloise Mary Shannah Frame
Los Altos Hills, California

Owen Michael Goldin
Springfield, Pennsylvania

Benjamin David Goldstein
Blauvelt, New York

Douglass Paul Gray
Catonsville, Maryland

Thomas Martin Griffin
Camp Springs, Maryland

Benjamin Richard Haggard
Santa Fe, New Mexico

Moses Michael Harris
Chicago, Illinois

Randal Ross Hester
Lubbock, Texas

Steven Matthew Holland
Scarsdale, New York

Bruce Edward Hopkins
Rockford, Illinois

Sally Ann Huelsebusch
Naperville, Illinois

Timothy Patrick Hughes
Detroit, Michigan

Robert Lee Humber
Falls Church, Virginia

Jeffery Elizabeth Hume
Monroe, Virginia

Charles Bowditch Hunter
Rockville, Maryland

Charles Norman Hurt, Jr.
Gaithersburg, Maryland

Marjorie Anne Hutter
Philadelphia, Pennsylvania

Charles Foster Jones II
Waterville, Maine

Carol Lynn Katrina
Swedeland, Pennsylvania

Blake Thomas Kline
Baltimore, Maryland

Kathryn Davide Kominars
Alexandria, Virginia

Elizabeth Trent Leatherwood
Fort Worth, Texas

George Richard Lezenby
Ambler, Pennsylvania

Jonathan Joseph Magidovitch
Sumter, South Carolina

William Hardee Mahoney, Jr.
Jacksonville, Florida

David Mark Mazzeo
Newburgh, New York

Margery Vera Miller
Upper Saddle River, New Jersey

Jean B. Oggins
Vestal, New York

Brian Christopher O'Leary
Greensburg, Pennsylvania

Robert Owen Paris
Jericho, New York

Daniel Nash Parker
Silver Spring, Maryland

Kevin William Parker
Roanoke, Virginia

Jonathan Peter Patten
West Bloomfield Hills, Michigan

Melinda Lee Pendleton
Nashville, Indiana

Mary Elizabeth Pennypacker
Wayne, Pennsylvania

Jennet Peoples
Geneva, Illinois

Frances Ellen Pickering
Alexandria, Virginia

Joan Ellen Price
Louisville, Kentucky

Charles Chaim Reuben
Highland Park, Illinois

Tina Susan Rhea
Boothwyn, Pennsylvania

Robert Foster Richards
Baltimore, Maryland

Margaret Susan Rosenberg
Appleton, Wisconsin

Margaret Alice Rude
Hamden, Connecticut

Jamelia Saied
Fairbanks, Alaska

Kimberly Ann Schraf
Latrobe, Pennsylvania

Kristina Mae Shapar
Chevy Chase, Maryland

Stephen Molony Sharkey
Gaithersburg, Maryland

Brian Silverman
Beloit, Wisconsin

Lisa Palma Simeone
Pittsburgh, Pennsylvania

Jeffrey Price Smith
Harwood, Maryland

Paul Arthur Stevens
Adelphi, Maryland

Philip Carl Storre
Eureka, California

Robert Edward Tangora
Walla Walla, Washington

Robin Frances Thompson
Torrance, California

Blair Marie Toler
Oxon Hill, Maryland

David James Tonjes
Northport, New York

Deana Julij Tosheff
Mount Rainier, Maryland

William Hall Tripp
Alexandria, Virginia

Byron Edwin John Truax, Jr.
Miami, Florida

Douglas Robert Twigg
Pasadena, Maryland

Scott Edward Umphres
Creve Coeur, Missouri

Karen Wachsmuth
Mendham, New Jersey

David Wald
Pittsburgh, Pennsylvania

Harold R. Weisbaum
Potomac, Maryland

Ira Francis Weiss
New York, New York

Robert Cox Werner
Istanbul, Turkey

Kenneth Lee Westmoreland
Louisville, Kentucky

Isabel Brock Whiston
Amherst, Massachusetts

Roy Walter Wieselquist
Greensboro, North Carolina

Robert Stuart Williams
Annapolis, Maryland

Kevin Charles Young
Wildwood Crest, New Jersey

Brian Frederick Zenone
Vienna, Virginia

Bruce A. Kolman
Wilmette, Illinois

MEETING OF THE DELEGATE COUNCIL

Tuesday Sept. 8, 9:30 pm McDowell 24

Present: Mr. Jerrems, Mr. Olson, Mr. Dixon, Mr. Grand , Mr. Magee, Mr. Elliot, Ms. McKay, Ms. Merritt, Mr. Feuchtenberger, Mr. Weinstein, Ms. Nash

President Weigle has warned that if smoking in the auditorium continues, the films stop. Furthermore, he is not pleased by the preponderance of cats on campus. They may keep mice and cockroaches away, but occasionally they bring fleas to the dorms (your beds-your bodies) and a certain odor. Try to accommodate the reasons and rules against having them as you see fit or you and your pet may have to pay for it. Electricity too, is expensive. All politics aside turn off those lights.

RAM is rather in debt. No action has been taken on the bills yet. But the 200 dollars plus has to come from someplace soon.

Elections coming up in the next month or so. Freshman, you can't run, but you can vote, and come to D.C. meeting Tuesday nights. So there.

-C.D. Nash in the absence of Sec. Hendriks

More Notes...

Positions are now open to students interested in serving on the following committees: Instruction, Food, Student Life, and Campus Development.

The Student Committee on Instruction considers matters of curricula weekly and meets with the Faculty Committee on Instruction about four times a year to discuss proposals.

The Food Committee makes and relays suggestions for the improvement of the fare and the dining room service. The managers of the Dining Hall are looking forward to working with this committee. The effectiveness of the Food Committee should be substantially greater than it has been in the past.

The purpose of the Committee on Student Life "shall be to develop and propose legislation to the Delegate Council (concerning) the regulation and governance of non-curricular aspects of student life." --Constitution for the Government of the Student Polity

The Campus Development Committee is basically a faculty committee with three positions for student representatives. The committee has just completed work on plans for the renovation and extension of Paca-Carroll. The major work for this year will probably be in working out the plans for extending Randall Hall (renovation of kitchen-serving areas) and the gymnasium.

There is also a position open for a student representative on the Alumni Board and two positions open for student reps on the Board of Visitors and Governors.

If you are interested in being on any of the above, drop me a note in the campus mail this week. The DC will be making its final decision on appointments next Tuesday (the 23rd).

The Interim Delegate Council

Campbell: Ken Kimble, Rachel McKay, Cynthia Nash; Chase-Stone: Rollie Feuchtenberger; Humphries: Bernadette Keefe; Paca-Carroll: S Gray; East Pinkney: Joe Olson; West Pinkney: Karen Bent; Randall: see Dan Jerrems or Jacquie Blue; Off Campus: Steve Weinstein, Arthur Dixon, Steve Magee.

President: Dan Jerrems; Treasurer: Bob Elliott; Secretary: TW Hendricks.

FRESHMEN: There will be elections in two weeks, so get to know the upperclassmen in your dormitory--one will soon be representing you. --Dan Jerrems, Pres.

The following is the operating Student Polity budget for this year:

King William Players $900; Syndicate of Bacchus (waltz parties $100, cotillion $200, square dance $120, large party $450) $870; RAM films $500; Employment agency $25; Astronomy club $100; Fencing club $60; Photography $80; Boat club $400; Karate club $75; Jr-Sr Cocktail party $50; Chess and Go club $50; Polity $25; February freshmen $50; Christmas party $50; Party fund $200.

Should any of these organizations wish to use the money allotted to them, bills payable must be presented to the Student Polity Treasurer for payment. The amount of each bill will then be subtracted from that particular club's allotment. Money can be given to club officials only with permission of Delegate Council officers.

Submitted by Bob Elliott
Polity Treasurer

Seniors: If you plan to apply to graduate schools or law school for the 1976-1977 year, you should register to take the GRE or the LSAT this fall.

Next Graduate Record Exam is October 18 1975. Registration Deadline- September 26 1975.

Next Law School Admission Test is October 11, 1975. Regular registration has closed. Late registration deadline (additional fee)- Sept. 18, 1975.

All Students interested in law school: a representative of Temple Law School will be on campus to talk with students on Tuesday, September 23, 1975, 3:00-4:00 in McDowell 22 (Placement Office).

A Marine Corps representative will be on campus to talk turkey from 10:00-2:00, Thursday, September 18, in FSK Lobby.

--Brenda Robertson, McDowell 22 Ext. 21

MEN'S SPORTS by Bryce Jacobsen

Football: Druids-14, Guardians-12. The Guardians had not lost a football game in several years...Messrs Bell and J Harris had seen to that. But these sort of records are always precarious, and little things can cause a team's undoing. One little thing was that the Guardian receivers were not catching the ball very well in this game...which added up to unconverted conversions, and finally some "desperation" passes that backfired, since the Druids caught them.

The Druids are fast, talented, and tricky. They know what to do when they get the ball. They will be tough this year, or at least "pesky". And no doubt the Guardians will settle down and win some games, now that their godlike undefeated aura has come to an end.

THIS WEEK'S SCHEDULE:

Football:	Tues 4:15	Greenwaves-Druids
	Thur 2:30	Guardians-Hustlers
	3:45	Spartans-Greenwaves
Soccer:	Sat 1:45	Greenwaves-Druids
	3:00	Guardians-Hustlers

Remember to renew your locker fee by Friday, Sept. 26, if you want to keep the locker.

PARKING

Any unregistered car on the parking lots will be towed away. Automobiles should be registered with Mrs. Mann in the Treasurer's Office. Any car parked on a red line will be fined $5.00

C. T. Elzey
Treasurer

BOAT HOUSE

Tuesday night at 8:00 McDowell 21 there will be a meeting for people interested in learning to sail.

Schedule:
Mon Tues Wed ---- 2:30-5:00
Thurs Fri Sat Sun --- 1:00-5:30

People that are already authorized to sail should see Kimo Mackey in order to get an actual bay card.

this week's menu

MONDAY:	L:	Hamburger
		Escalloped ham and potatoes
	D:	Deep fried perch
		Pork Polynesian
TUESDAY:	L:	Grilled cheese and pimento salad sandwich
		Frankfurter Creole/Rice
	D:	Corned beef and cabbage
		Beef stew/noodles
WEDNESDAY:	L:	BBQ Beef sandwich
		Turkey Tetrazinni
	D:	Grilled ham steak
		Spaghetti w. meat sauce
THURSDAY:	L:	Tuna salad sandwich
		Beef ravioli/sauce
	D:	Hamburger steak/sauteed onions
		Chicken pot pie
FRIDAY:	L:	Beef and cheese on onion roll
		Western omelette
	D:	Pappy Parker fried chicken
		Baked whitefish supreme
SATURDAY:	L:	Double dig egg salad
		Cheddar beef bake
	D:	Braised Swiss steak
		Julienne Turkey
		Rice w. mushrooms

COLLEGIAN STAFF

Caroline Allen
S. A. Arcand
M. Blume
Michael Case
Cathy Craig
B. Davidson
Rab Godfrey
S. Gray
Ben Haggard
Doc Jerrems
P. Leatherwood
Caroline Mandy
Jean Oggins
R. Plaut Editor
John Rees
Phil Reissman
Terry Schuld
Marta Stellwagon
Jon Wells

THE COLLEGIAN
St John's College
Annapolis, MD 21404

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