

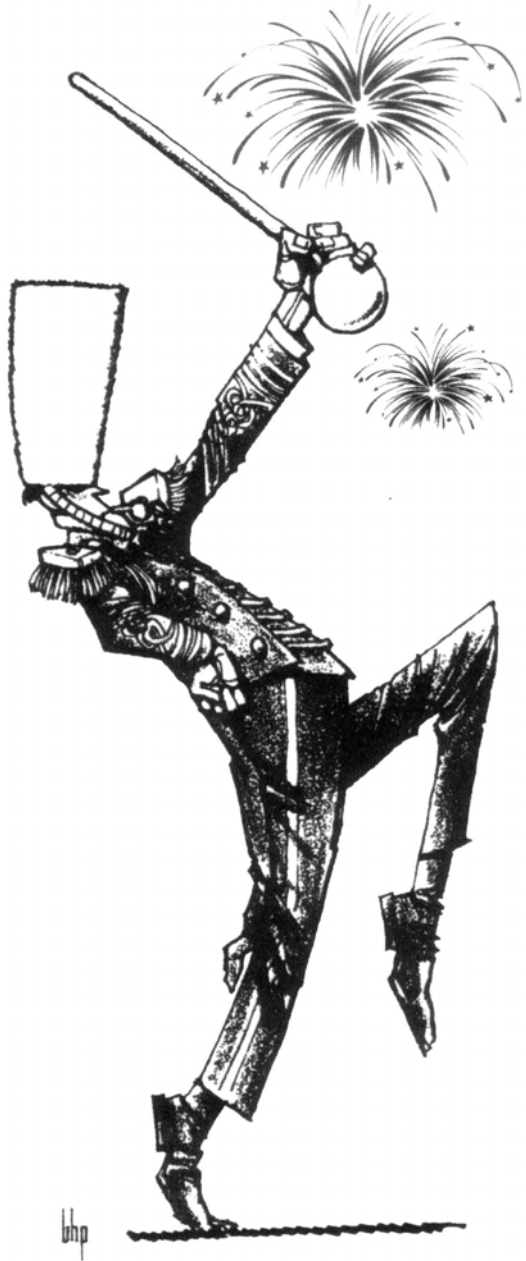
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The
SCAM
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Newsletter

Editor J.T. Moran
Assembly/Circulation Wynn Rostek
Events Coordinator/Gofer Jon Warner
Cover Artist Barbara Peer
Profreader Helen Lee Moore

We will appreciate your submissions **legibly handwritten, typed, in e-mail text, or on 3.5 disk in IBM text or word-processing format.** We can receive your submissions by mail at: **P. O. Box 457, Sharpes FL 32959**, or submit via e-mail to: **morwood@brevard.net**
Subscription — \$10.00 for 12 issues.

Happy July Birthday



- | | |
|--------------------|--------------------|
| 01-John Redmond | 13-Dale Irwin |
| 02-Gerald Nelms | 18-Thomas Lowe |
| 05-Jason Carlin | 20-Jeff Barbour |
| 05-Bob Tuck | 26-Joseph Matthews |
| 06-Paul Yashko | 28-Thomas Wheat |
| 08-Helen Lee Moore | 30-Julia Jones |
| 13-Charles Hager | |

Welcome to Mensa & SCAM

Wilbur Sweeten - Melbourne

Welcome Back to SCAM

Susan Freedman-Noa - Palm Bay
David MacKinnon - Palm Bay
Marcus Vahle - Merritt Island



On the Firing Line



***J.T. Moran
SCAM Editor***

We Get Mail!



There are many reasons for throwing a party. The primary ones are to see your friends and to have a good time with them. One other benefit of throwing your own party is that you don't have to drive very far to get home afterwards.

Well, SCAM throws a party once every two years. From it we earn the monies necessary for the funding of this newsletter and also the SCAM scholarship. And so, once again, the time has come when we need to establish the RG committee. The positions that need to be filled are:

Chair – mans the helm

Registration – and **Publicity** – our voice(s) to the outside about the RG – promotes the RG and gets as many registered as possible.

Programs – lines up the speakers and presentations

Hospitality – coordinates the Friday night Dinner, Saturday morning breakfast, Saturday Lunch and the Saturday night OOOHHH-AAAHHH.

Games Coordinator – judge and jury at the tournament games

Contracts Liaison(s) – act as our contractor(s) for the hotel, t-shirts, etc.

If you want more information about the duties assigned to each chair, please feel free to call anyone on the ExComm for information. To volunteer for any of these positions, please attend the next ExComm meeting (or send word to the ExComm).

Let us all remember that this will be last RG for this group in the 20th century. We may all be buggy come October 2000.



To all who voted in the SCAM ExComm elections, I thank you for taking an active role in the group. To all who voted for me, in particular, I thank you very kindly. SCAM needs the support of the membership. I will serve the committee and the group to the best of my abilities.



Clara Woodall-

***Doug in
Deep(er)***



***Douglas
Paul,***

LocSec

***Meet Your
1999 - 2000
ExComm***

For those SCAMsters who didn't attend Beach Bash '99, you missed a great party! **Peg Brawner**, Beach Bash Honcho (and general whipping girl) acquitted herself quite nicely by throwing an RG with no visible (to the attendees, anyway) SNAFUs - quite an accomplishment! Kudos, Peg!

My fond memories of BB '99 include finding out on Friday night that **Dana Groulx** (TBM's resident beermeister) had snagged an entire KEG of Bass Ale; **Charlie Steinhice** and **Ray Paul** comparing their memorized pieces of totally useless knowledge while the rest of us just looked on, dumbfounded; my own stint onstage at Karaoke performing what I guess can now be called my "standard" song ("Just A Gigolo," a la **David Lee Roth**); spending almost 5 hours in a cramped hospitality room with a large-bore sniper rifle, several submachine guns and three other kids, all shooting each other; and (most importantly) staying out of the sun! (After what happened to me in April, the national office has promised to mail back my Mensa membership card if I can get through the summer without burning myself to a crisp again).

On a more local note, I'd like to sincerely thank everyone who voted in the SCAM ExComm election -- your participation is very much appreciated by all of us in SCAM.

See you out there.



After due deliberations, here is the Executive Committee that will take SCAM into the year 2000:

Doug Paul: LocSec

Clara Woodall - Moran: Assistant LocSec

Ray Paul: Treasurer

Fran Hinson: Recording Secretary

Bob Tuck: Member-at-Large

Please join with me in thanking Jon Warner for another year of exemplary service to SCAM. And in thanking the members of the new ExComm for their efforts in keeping SCAM sailing smoothly for another year.



Minutes of the ExComm Meeting



by

***Fran
Hinson,
RecSec
(bhinson01@
earthlink.net)***

The ExComm met on 06 June 1999 at the home of Doug and Ellen Paul in Rockledge. The meeting was called to order at 12:04.

Members present were Doug Paul, Ray Paul, and Fran Hinson. Jon Warner was absent.

Guests in attendance were Ellen Paul, Helen Lee Moore, Clara Woodall-Moran and Kathy Hornak.

Correspondence:

Ray Paul received email from Julia Lilly regarding corporate subscriptions and from Luke Setzer.

Moved Ray Paul, **second** Bob Tuck to approve the Minutes of the May meeting as published. Passed **unanimously**.

Officer Reports:

LocSec: Doug received email from Barbara Peer relating that Shirley Trotter has volunteered to produce a new Membership Directory. He also received email from Bob Beatty, the incoming Chairman of AML, regarding suggestions from Andrew Neubauer on how to improve Mensa.

Asst. LocSec: No report

Treasurer: Ray distributed copies of the Treasurer's Report and Monthly Account Summary as of 31 May 1999.

RecSec: No report

Member-at-Large: No report

Committee Reports:

Audit: The Audit Committee communicated via written report that they found no discrepancies in the Treasurer's records for the Fiscal Year ending 30 April 1999. They commended the Treasurer for his efficiency and accuracy.

Bylaws: No report

Editor: No report

Membership: Jon reported in absentia that the membership as of as of 04/30/99 was 191 members.

Nominations and Elections: No report.

Publicity: Bob sent out numerous PSAs and news releases regarding the Scholarship and testing.

Scholarship: Ellen reported that she has received several requests for information and applications. She expects to receive information from MERF before the next meeting of the ExComm.

SIGHT: No report

SIGs: No report

Testing: A test session will be held on Saturday, 26 June 1999. National Testing Day will be 13 November 1999. Discussion of time and place was tabled until the next meeting.

Ways & Means: No report

Webmaster: The new SCAM Web Page went online as of 10 May 1999 and the new URL was added to the AML Main Page as of 16 May 1999.

Unfinished Business: None

RECESS TO SEAT OFFICERS FOR THE 1999-2000 EXCOMM

The new officers are:

LocSec: **Doug Paul**

Assistant LocSec: **Clara Woodall-Moran**

Treasurer: **Ray Paul**

RecSec: **Fran Hinson**

Member-at-Large: **Bob Tuck**

APPOINTMENT OF COMMITTEES/OFFICERS

All Committees/Officers were re-appointed, with the following exceptions:

Ways & Means: **Ellen Paul** replaces **Helen Lee Moore**.

Webmaster: There was a lengthy discussion this office. The matter was referred to the Bylaws Committee to develop an official job description and guidelines governing this position.

Gifted Children: Seeking volunteers

Mediator: Seeking volunteers

RG Committee: Seeking volunteers

New Business:

The ExComm was presented with copies of a revised Property List. Doug will invite Shirley Trotter to attend the next ExComm meeting with samples of Membership Directories she has produced.

Open Forum: No one had anything to present.

Announcements: None

Next Meeting: The next meeting of the ExComm will be held at **14:00 on Saturday, 10 July 1999** at the home of **Helen Lee Moore**.

Bob **moved** to adjourn. Clara **seconded**. Passed **unanimously**. The meeting adjourned at 14:22.



Gourmet's Guide

by

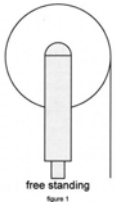
**Arthur
Belefant**

(belefant@
winnie.fit.edu)

**"Toilet
Paper"**
© 1999

**"Don't Stop
Me Now...I'm
on a Roll!"**

Figure 1.



free-standing

After the publication of my article on the positioning of toilet seats (PMEngineer, March 1998), I was challenged by several readers to put my research and analytical skills to the equally vexing and contentious problem of how a toilet paper roll should be mounted in its holder. The question is: should the paper roll be mounted so that the loose end hangs down in the front (away from the wall, or AFW) or to the back (against the wall, or AW)?

Careful observation in the United States has led to the determination of two variables that affect the answer to this question. Foreign toilet paper and how it is dispensed may be the subject of a future study. The two factors in this analysis are:

1. Toilet paper comes in two types, which are germane to this study.
 - a. printed
 - b. non-printed
2. Toilet paper holders come in four types.
 - a. free standing
 - b. cantilevered from the wall
 - c. recessed into the wall
 - d. hinged at the wall

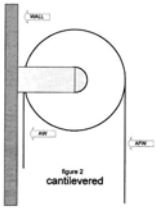
Analysis of toilet paper rolls found in supermarkets in the U. S. has failed to reveal any printed toilet paper that is printed on both sides or that is printed on the side other than which is rolled on the outside. Therefore, although such types of toilet paper may exist, they are so uncommon that they may be ignored in this discussion, so for this study, printed toilet paper means paper printed on the outside of the roll.

All samples of colored toilet paper checked showed color on both sides of the paper, therefore colored paper was not treated as a separate category in this study.

Toilet papers are sometimes embossed but the embossing shows on both sides of the paper, therefore embossing does not create a category different from those listed above.

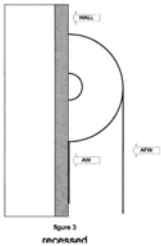
Free-standing toilet paper holders (fig. 1) are designed in such a manner that it is difficult to access the free end of the paper unless it is loaded so that the free end hangs on the user's side, thus making the making the question of the direction of loading non-moot. The free end must hang towards the front. The other three classes of toilet paper holders do allow for a choice of mounting position.

Figure 2.



cantilevered

**Figure 3.
recessed**



The cantilevered holder (fig. 2) allows for the toilet paper roll to be mounted with the free end AW or AFW. If the toilet paper roll is mounted AFW, the paper is more readily grasped. Mounted AW there is less space for the fingers to acquire the paper. This is particularly so if the paper is torn off at the vertical tangent of the roll and there is no free end hanging down. However, mounting the paper AW does make the paper obtrude into the room less, particularly as the free end increases in length.

For a cantilevered toilet paper holder, as the paper is used up, the free end moves further away from the wall if the paper is mounted AW, and moves closer to the wall for AFW.

For printed paper an additional aesthetic component is introduced. Paper mounted AW will have the design hidden on that part of the paper extending off the roll.

Examination of the recessed toilet paper holder (fig. 3) results in the same considerations as the cantilevered holder except that approach to the paper is even more restricted when the paper is mounted AW. This form of mounting will place the loose end right against the wall, making access more difficult. The closeness of the free end of the paper to the wall remains the same as the paper is used.

The recessed toilet paper holder, when the paper is mounted AFW, places the free end sufficiently far from the wall for ease of access and yet closer to the wall than the cantilevered holder does. The free end of the paper moves closer to the wall as the paper roll decreases in size. The aesthetics of the free end hanging down is the same as that for the cantilever holder.

Thus for both the cantilever holder and the recessed holder, for unprinted paper, the choice is between the aesthetic advantage of not having the loose end hanging into the room versus having the loose end of the paper more easily accessed. And for both the cantilevered holder and the recessed holder, for printed paper, there is the question of the ease of accessibility and the choice of the two opposing aesthetic considerations.

Since there is no method of quantifying aesthetics, the choice of mounting must be strictly personal. However, for printed paper, I may suggest that the aesthetics of viewing the printed surface of the hanging end and the convenience of accessing the loose end of

the paper overweigh the negative aesthetics of the loose end hanging into the room. Thus, for printed paper the roll should be mounted in the AFW mode.

For the hinged toilet paper hanger (figures 4a and 4b) the analysis is the same as for the recessed toilet paper. For paper rolls mounted AW, the difficulty of accessing the free end that is against the wall and remains against the wall as the paper is used is a major negative factor.

An additional consideration for the hinged toilet paper hanger is the friction of the paper against the wall, which is not applicable in the other three mounting types. For other than the hinged mount, the only friction involved is that of the roll on the roller and the roller in its support, and that is the same regardless of which direction the paper rolls.

The friction load is a function of many variables. Those variables include the coefficient of friction between the wall surface and the paper (factors that go into the coefficient of friction are the wall surface, the paper surface, the ambient temperature, relative humidity, etc.), the weight of the paper roll plus that of the supporting rod, the angle of the hinged holder to the wall which, in turn, is a function of the amount of paper left on the roll, and the angle at which the paper is pulled from the roll.

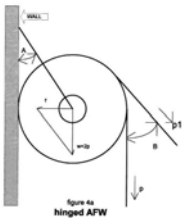
All these factors are quantifiable, but extremely variable given that such things as wall surfaces are infinite in type and condition, paper textures are probably available in the hundreds, and support arm lengths vary from manufacturer to manufacturer. Therefore I will address the matter of friction in general terms only.

Referring to figures 4a and 4b; w is the weight of the roll of toilet paper, its supporting rod, and a portion of the weight of the bracket.

In a static condition there is a force, f , pressing the paper roll against the wall. f is w times the tangent of angle A . A is the angle formed by support bracket and the wall and is a function of the length of the support rod and the half diameter of the paper roll. The diameter of the paper roll is a function of amount of paper remaining on the roll.

Starting with the paper mounted in the AFW position (fig. 4a), when the paper is pulled straight down with a force p , before the paper begins to roll there will be a force of $2p$ applied to center of the roll. This will add to the static force of w . Thus the force of the roll against the wall, f , will be $(w+2p)\tan A$. The starting friction is

Figure 4a.



hinged AFW

$((w+2p)\tan A)$ times F (the coefficient of friction between the paper roll and the wall). The effort required to start the roll of toilet paper moving is the force, $p = (w \times \tan A \times F)/(1-(2 \times \tan A \times F))$. With every thing else held constant, the greater the angle A , the greater is the force, f , and thus the greater the pull, p , required to start the roll moving. Or to express it differently, it is easier to start an almost empty roll than a full role.

Of course, this analysis assumes that the paper is pulled straight down. If the paper is pulled with a force p_1 at some angle from the vertical, B , the most usual situation, the force, f , will be less, $p_1 = p - p \times \sin B$. Depending on the angle B , when the paper is pulled away from the wall the force, f , may equal zero and then there will be no starting friction (except for roller fiction).

When we take the AW mode of mounting the toilet paper (fig. 4b) the situation is simplified. When the paper is pulled straight down, the only force that results in a starting friction is $f = w \times \tan A$, therefore $p = w \times \tan A \times F$.

The pulling force for condition AW is significantly less than for condition AFW. In addition, condition AW does not allow for a straight down pull on the toilet paper. The geometry of the human hand does not permit it. In all cases of condition AW the paper will be pulled at some angle, B , from the vertical.

This angle will result in a force that is a function of the pulling force, p_1 , in the horizontal direction opposite that of force f . The resultant force against the wall is $f = (w \times \tan A) - (p_1 \times \sin B)$.

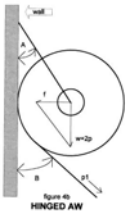
The pulling force required to start the roll moving is $p_1 = w \times F \times \tan A / (1 + \sin B)$. In all cases of angle B , the force against the wall resulting in starting friction, condition AW will be less than condition AFW and will reach zero at a smaller angle B .

Thus, for the hinged toilet paper holder the choice is between the ease of accessing the paper in AFW versus the difficulty of grabbing the end of the toilet paper in AF; the aesthetics of having the paper against the wall and not seeing the printed side hanging down versus the aesthetics of seeing the printed side hanging down but obtruding into the room; plus having the additional force required to pull the paper off the roll in the AFW configuration.

The choice is yours.



Figure 4b.



hinged AW

Bob-at-Large

**Time
tinkering and
stitches
therein**

by

**Bob Tuck,
Member-at-
Large**

copyright ©1999

When's his



**birthday?
I need a new
mattress!**

Weighted matters take time. Pope John Paul II just gave us a prime example. During his recent visit to his homeland, Poland, he went farther than any previous pontiff. He praised the great work of his compatriot, Nicolaus Copernicus (1473-1543), the astronomer, best known for his astronomical theory that the sun is at rest near the center of the universe, and that the earth, spinning on its axis once daily, revolves annually around the sun. A bit tardy, perhaps, but one could argue that a mere four hundred fifty-six years counts for little in the grand scheme of things.

Humans long have tinkered with time, anyway. Sometimes, the results can startle the unwary. For example, a certain newspaper article appeared in the February 19, 1706, issue of the Edinburgh, Scotland, *Courant*. The article was an abridgment of one published in the London, England, *Gazette* of February 13, 1705. So far, so good. However, the original article appeared in the Amsterdam, Netherlands, *Gazette* on February 22, 1706. Did the London newspaper use time travel to get hold of, and publish a translation of, an item from Holland more than a year before it appeared? Even the Scots somehow seem to have scooped the Netherlanders by three days.

In fact, all three journals published these versions within the **same week**. How so?

Well, you see, in the early 1700s Scotland and the Low Countries opened the year on January 1, while England (and her American colonies) began it on March 25. At the same time, the Low Countries already used the Gregorian calendar, while England (and her American colonies) and Scotland, staunchly anti-papist, steadfastly clung to the Julian calendar. This accounts for the discrepancy in days.

If England (and her American colonies) had not finally adopted the Gregorian calendar, and January 1 as New Year's Day, in 1752, we'd celebrate George Washington's birthday on February 11, instead of February 22. Furthermore, our history books would list our first president's birth year as 1731, instead of 1732.

From my own point of view, an instantaneous jump from one year to the next, or back, or of eleven days one way or another, means little. In March 1975 (Gregorian calendar), at home in Tehran, Iran, I went to sleep on the night of the final day of 1354 A.H. Iranian Solar calendar and awoke the next morning on the first day of 2535 Imperial Iranian Solar calendar. His Imperial Majesty,

July 1999 Calendar of SCAM Events

Membership in American Mensa, Ltd. makes you eligible to attend SCAM social functions. Escorted and invited guests of a member or host are welcome. Adult family members of Mensans are encouraged to participate in SCAM activities, as are well behaved children. However, attendance at any social function in a **private home** is subject to the hospitality of the host. Compliance with published house rules is required, and "Kitty" payment is **not optional**. As a courtesy, notify the host if you plan to attend. When reservations are required, you may not be able to participate if you fail to call. *S*-Smoking; *NS*- No Smoking; *SS*-Separate Smoking Area; *P*-Pets in the home; *NP*-No Pets present; *BYO* -Bring Your Own: *_*Snacks, *_*Drinks, *_*Everything.

2nd Friday **6:30 p.m.** **Firearms & Fried Rice**
\$3 + Meal Cost **SS/NP**

We're shooting our guns and eating Chinese food. Come join us at The Gun Site Range, 135 S. Banana River Dr., Merritt Island.
J.T. Moran

3rd Saturday **2:00 - 6:00 p.m.** **Pool Party**
\$3.00 **SS/NP**

Dennis & Ann are hosting another pool party! They have a beautiful house and a great pool and porch area. The weather should be hot and the water cool.
Dennis & Ann Schindler

5th Monday **7:00 p.m.** **C.A.B.A.G.E. North**
Free **SS/NP**

Treat yourself! Coffee, games, books, at Barnes & Noble book store, Merritt Island.
Doug & Ellen Paul

10th Saturday **Newsletter & Calendar Deadline**

Call Jon to schedule an event; see page 3 for NL info.

10th Saturday **2:00 p.m.** **ExComm Meeting**
Free **S/P (Dogs)**

The Executive Committee will be meeting this afternoon. Members are encouraged to attend and to participate.
Doug Paul (LocSec)
Helen Lee Moore (Host)

10th Saturday **7:30 - 10:30 p.m.** **Contra Dancing at the Barn**
\$5.00 **SS/NP/BYOS**

No experience necessary. Friendly toe-tappers will teach you the latest stepping to live folk music. Comfortable shoes highly recommended. The Barn is on Minton Rd in Melbourne, 2.5 miles south of US 192.
Karen Freiberg

14th **7:00 p.m.** **C.A.B.A.G.E. South**
Wednesday **Free** **SS/NP**
Treat yourself! Coffee, games, books, at Books-A-Million, Melbourne.
Doug & Ellen Paul

16th **7:30 a.m.** **Games Night**
Friday **\$3.00** **SS/P**
Carole was aghast at the paucity of July events, so she has kindly offered up her home to our merry bunch of gamers. Come join us if you are a gamer, or even just merry.
Carole Forsythe

18th **11:00 a.m.** **Sunday Brunch with Jim**
Sunday **Meal Cost** **SS/NP**
Jim's going to be continuing the Sunday Brunch at The Colossus Restaurant, 380 N. Wickham Rd., Melbourne, with one little change ... you MUST be seated no later than 11:00 a.m. or you won't sit with us. We can't save any seats for latecomers.
Jim Trammell

19th **7:00 p.m.** **C.A.B.A.G.E. North**
Monday **Free** **SS/NP**
Treat yourself! Coffee, games, books, at Books-A-Million, Merritt Island.
Doug & Ellen Paul

24th **1:00 p.m. - Overnight** **Outdoor Slumber Party**
Saturday **\$11.00** **S/P**
Let's try an overnight slumber party at Wickham Park in Melbourne. MoiraLynn Mefein of Daytona Beach is starting a camping outing about every two months. See the article in this newsletter on page 22 for further details.
MoiraLynn Mefein

28th **7:00 p.m.** **C.A.B.A.G.E. South**
Wednesday **Free** **SS/NP**
Treat yourself! Coffee, games, books, at Barnes & Noble, Melbourne.
Doug & Ellen Paul

31st **6:30 p.m.** **S.N.O.R.T.**
Saturday **Meal Cost** **SS/NP**
Our longest and best attended function in SCAM. Swing by Miyako's Restaurant at 1511 S. Harbor City Blvd., (U.S. 1), Melbourne and see what I've been writing about.
J.T. Moran

632-0854



Shah Mohammed Reza Pahlavi, had decreed it so and discarded the Era of the Hajj. This earned him more of the fundamentalist Shiite Moslem's growing scorn. That summer, the Shah also instituted daylight saving time. The mullahs and ayatollahs exploded in fury, since the scheme jumbled traditionally appointed prayer times. Two years later, the Iranian calendar reverted to 1357 A. H., and daylight saving time ended. The shah's regime staggered on another two years. The rest is history: mine, and the ayatollahs', so to speak.

It's easy to suppose that early peoples measured time by counting days, lunar phases, and the changing seasons. Archaeological finds bear out such suppositions. When developing societies needed to slice daylight into finer sections, they made simple sundials. The reigns of chieftains and kings gave the bases for counting years and naming eras. Time, for them, and for most of us, represents the period during which an action or event occurs. We also see time as a dimension representing a succession of such actions or events, making it is a fundamental quantity of the physical world, similar to length and mass in this respect.

There are three methods of measuring time used nowadays. The first two methods use the earth's daily rotation on its axis. These methods depend upon the apparent motion of the sun in the sky, that is, solar time, and the apparent motion of the stars in the sky, or sidereal time. The third method of measuring time uses the earth's revolution in orbit around the sun. This is ephemeris time.

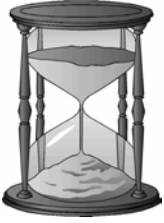
The earliest type of timekeeper, dating from as far back as 3500 BC, was the shadow clock, or gnomon, a vertical stick or obelisk that casts a shadow. An Egyptian shadow clock of the 8th century BC is still in existence. We'd call these arrangements sundials, and Anaximander (circa 611-c. 547 BC), a Greek philosopher, mathematician, and astronomer, born in Miletus (now in Turkey), introduced the sundial into Greece. About the 3rd century BC, the Chaldean astronomer Berossus described the first hemispherical sundial. A little later, during the early 300s and late 200s BC, Apollonius of Perga, Pamphylia (now Turkey), called the Great Geometer, Greek mathematician, made a sundial that proved even more advanced, with the hour lines inscribed on a surface of conic section. Ptolemy further improved the sundial's principle by using the analemma to account

***Sundials told
the right time***



***beyond a
shadow of a
doubt***

***Like sands
through the
hourglass...***



***so went the
days of their
lives***

for the sun's varying apparent path through the heavens during the year's course.

Sundials are fine for the sunny hours. People also need ways to count nighttime hours, too. Ancient methods of measuring hours without sunlight included notched candles. The Chinese burned knotted ropes and noted the time it took for the fire to travel from one knot to the next. Devices almost as old as the shadow clock and sundial included the hourglass, in which the flow of sand is used to measure time intervals, and the water clock, or clepsydra, in which the flow of water indicates passage of time.

Clepsydras became complicated. About 270 BC, the Greek inventor Ctesibius of Alexandria even included gearing. Eventually, someone substituted a weight falling under the force of gravity in place of the flow of water in time-measuring devices. This anticipated the mechanical clock. Meanwhile, clepsydras arrived in China, where mercury replaced the water to measure short time periods.

In AD 725 the Chinese monk and mathematician I-Hsing (Yi Xing) invented and made the first known mechanical clock, about 10 meters high, which he derived from the clepsydra. Its driving power was still hydraulic, but it was more precise than the holed vessel. It consisted of a wheel with strictly identical paddles into which the water flowed. Each time a paddle filled, it caused a rotation of a 36th of an arc. A huge, precise gearing system caused the rotation of a celestial sphere. I-Hsing designed the sphere with representations of the Sun and the Moon. The "Sun" made one complete rotation every 365 days. The "Moon" made one complete rotation after slightly more than 29 days, and I-Hsing's device also showed lunar phases. The level of a part representing the horizon also enabled the brilliant Chinese sage to determine the exact hours of sunrise and sunset. Oh, yes, bells and drumbeats announced the hours and quarter-hours.

The principle of Chinese clocks probably arrived in the West in the form of descriptions or drawings. It was definitely in the West however that the first weight clocks appeared, thanks to the first Frenchman to become pope. Gerbert (circa 945-1003), born near Aurillac, France, became Pope Sylvester II (999-1003). His scholarly achievements earned him so great a reputation for scholarship and scientific learning that many of his contemporaries considered him a magician in league with

the devil. His scholarly treatises on mathematical, philosophical, and physical subjects had wide renown. Sylvester also may have introduced the use of Arabic numerals into western Europe.

At any rate, Gerbert's improvement was clearly more reliable than running water, since freezing conditions incapacitated water-driven clocks. A weight, suspended by a cord wound round a cylinder, and a cogwheel controlled its regular rotation. The cogs, in turn, engaged each other alternately by successive pivoting. Gerbert's invention allowed mechanical clocks to function autonomously for the first time in history.

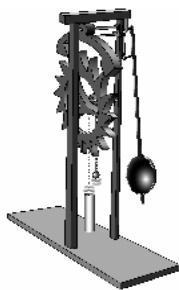
The first clocks nevertheless had neither dials nor needles, but a hammer stamp which at given intervals would activate a ringer, which would then sound the bells. Two versions of this type clock remain to this day. They were built for Salisbury Cathedral in England and for Rouen, in 1386 and 1389, respectively. The one in Rouen has the unprecedented characteristic of sounding the quarter-hour.

Obviously, clockworks were initially heavy, cumbersome devices. A clock built in the 14th century by Henry De Vick of Württemberg for the royal palace (now the Palais de Justice) in Paris was powered by a 227-kg (500-lb) weight that descended a distance of 9.8 meters. The crude apparatus controlling its rate of fall made the clock inaccurate by our standards. Anyway, in De Vick's day, clocks had dials with only one hand to show the nearest quarter hour. Close enough.

A series of inventions in the 17th and 18th centuries increased clockworks' accuracy and reduced the weight and bulk of the mechanisms. Galileo had described late in the 16th century the property of a pendulum, known as isochronism, stating that the period of the swing is constant. In 1657 Dutch physicist Christiaan Huygens showed how a pendulum could be used to regulate a clock. Ten years later English physicist Robert Hooke invented an escapement, which permitted the use in clocks of a pendulum with a small arc of oscillation. British clockmaker George Graham improved the escapement, and John Harrison developed a means of compensating for variations in the length of a pendulum resulting from changes in temperature.

People really began tinkering with time in the 19th century. Until the late 1800s most towns and cities set clocks based upon the rising and setting of the sun.

***Pendulums
were the
preferred***



***clocks for
swingers!***

The Railroads were on the



right track with time zones

Because of the earth's rotation, dawn and dusk occur at different times at different places, but time differences between distant locations were barely noticeable because of long travel times and the lack of long-distance communications. Then, with the growth of rapid locomotive travel and long-distance telegraph communications during the 1830s, schedule and message conflicts began to arise. For example, because each train station set its own clock, coordinating train schedules was difficult. In the 1870s American railroads maintained 50 different time zones. Technology had created a need for a unified time-keeping system.

Cleveland Abbe, an American meteorologist, developed a system of weather reporting and forecasting using the telegraph to share information between weather stations. To compile his information, Abbe required a time-keeping system that was consistent between the stations. To accomplish this he divided the United States into four standard time zones. In 1883 Abbe convinced North American railroad companies to adopt his time zone system. In 1884 Britain, which had already adopted its own standard time system for England, Scotland, and Wales, helped gather an international consensus for global time zones.

Since the earth rotates 15 degrees of longitude per hour, the earth's 360 degrees were divided into 24 zones, each measuring about 15 degrees in width. The 0° longitude line, or meridian, was defined as a line running through the old Royal Greenwich Observatory in Greenwich, England. Time in each of the 12 zones east of Greenwich increases one hour for each zone. Time in each of the 12 zones to the west of Greenwich decreases by one hour. The International Date Line lies at the 180° meridian on the opposite side of the earth from Greenwich and divides the eastern and western time zones. The time difference between each side of the International Date Line is 24 hours. Thus, a traveler heading west across the date line loses one day while a traveler headed east gains a day.

Major variations in time zone boundaries exist to follow physical, geographical, and political boundaries and to avoid bisecting highly populated areas. The state of Georgia, for example, was originally divided into two time zones; the boundary was subsequently moved west to run along the Alabama-Georgia border. China, which

spans about 50 degrees of longitude, observes a single time zone based upon the time in the eastern part of the country. Guyana, Liberia, Mongolia, and Saudi Arabia still use their own local time systems. The International Date Line bends around the Bering Strait so that all of eastern Russia lies within the same day's time. Under the 1966 Uniform Time Act, the Department of Transportation administers and adjusts time zones within the United States.

The time in any given time zone or country may shift by one hour for certain periods of the year to gain maximum daylight hours and balance these hours from morning to evening. One such system is Daylight Saving Time in the United States. During World War II the U.S. Congress passed a law putting the entire country on "war time," which set clocks one hour ahead of standard time for the duration of the war. However, during peacetime, daylight saving was a subject of controversy. Farmers, who usually work schedules determined by sun time and are therefore inconvenienced when they must conduct business on a different time basis, registered strong opposition. Shades of the Ayatollah's protests!

Now, according to reports, a band of tinkerers and futurists is assembling the world's most accurate and durable timepiece. Designed by computer scientist Danny Hillis, the clock is supposed to run 10,000 years. It will tick once a year and keep time for 10 millennia, measuring not only minutes and hours, but years, centuries and the movements of the heavens. The clock was conceived six years ago by Hillis, who originated the idea of "massively parallel" supercomputers.

The notion has been taken up by author and consultant Stewart Brand, creator of *The Whole Earth Catalog*. Brand launched a foundation in 1996 to fund and build the clock, assembling a team of futurists and thinkers like Institute for the Future director Paul Saffo. The project was given a name by musician and artist Brian Eno: the **Clock of the Long Now**. Hillis, Brand and their cohorts believe that contemporary civilization, with its obsession with the here and now, its focus on rapid change and its disappearing sense of history, needs a powerful new symbol.

The clock will be accurate to within one day every 20,000 years, but just in case, a "solar trigger" will

***Farmers are
not happy***



***about
Daylight
Savings
Time***

Millions for a clock??



Time to think again!

I brought the



'roo... You bring the marshmallows

self-correct the clock's movement according to the noonday sun. If the clock is lost, or forgotten or buried, future generations can reset it using the map of the night sky on the face. The prototype, costing around \$500,000, should be completed later this year. The next step will be an interim clock four times the size of the prototype, which could be housed in a museum or other urban site. The "Big Clock," four times the size of the interim version, will cost in the tens of millions. Brand also envisions a library alongside the clock, to house crucial information over thousands of years.

Fund-raising efforts for the big clock are now under way. The location -- most likely in the American Southwest -- is yet to be determined.

I suspect the 8th century BC Egyptian shadow clock cost a lot less in its day. I wonder if it will still exist in AD 12,000?



First Bi-Monthly Outdoor Slumber Party; Wickham Park, Melbourne. Bring along your tent or other camping shelter and enjoy an afternoon, evening, and overnight of camaraderie and conversation under the stars.

Wickham Park has a notable nature trail, archery range, horseshoes, and pool, as well as two lakes suitable for fishing and swimming. There are picnic pavilions and of course the requisite showers and restrooms. Children are permitted, as are two leashed pets per site, but all must be under control and not disturb other campers.

Please note: this camp has been previewed for tent sites only; if you use any other sort of camping shelter (van, RV, pop-up, etc.) please call the campgrounds directly and inquire about sites available and their costs. Contact:

MoiraLynn Mefein (904-254-4898)

or

(Marylin717@aol.com)

for additional information. (You may have known her in a previous incarnation as Marylin Sheddan.)

There are no groceries or restaurants on the site, so bring food for meals and snacks or be prepared to hike about a mile to go off-site and take your chances.

(Continued on page 25)

***A View from
the Right:***

***GUN Control?
No! CRIME
Control!!
by***

***J.T. Moran
(buckmaster
@juno.com)***

***Finally... it's
the criminals***



***who lose
their liberties***

An amazing thing has occurred in the United States. In one city the murder rate DROPPED an incredible 32% in a single year. This city, which for the entire 1990's had found itself listed in the top 10 cities with the highest per capita murder rates, adopted a program which saw the number of murders plummet in 1998 by almost a third.

What was this amazing program, you might ask? Perhaps it was one of the Democrats' new gun control initiatives? Or maybe some liberal organization's gun buy-back program? Nope, none of the above.

What actually happened was that the city of Richmond, Virginia, adopted the "Project Exile" program, which had been conceived and promoted by the National Rifle Association. That's right, the fiendish home of all the gun nuts in our great country, the infernal NRA, came up with the first feasible and successful solution to violent crime in modern history. And it was accomplished without new laws that infringed upon the freedom and liberties enjoyed by the honest, law-abiding people of Richmond.

How does it work? It is the simplest of operations. In Richmond now, whenever a convicted felon is arrested and found to be in possession of a firearm, the weapons charge is dropped by the State Attorney and he is indicted by the U.S. Attorney for the district. Then comes the heretofore almost unheard of event - he is charged with felony weapons charges under laws that have been in existence for decades. Laws which the Clinton Administration's Justice Department has enforced only twice since 1993. In fact, in the year in question, federal prosecutors in Richmond alone got 304 convictions out of 347 cases, an 88% success rate. And the felons convicted received sentences averaging 4 ½ years, without parole! This begs the questions: why are they seemingly so effective, and why have they not been enforced by the current Administration which, if you believe the media, is so strong on "gun control." The answers to both can be found in the responses to the success of *Project Exile*.

As you might expect, a program that takes so many criminals off the streets has its share of critics, and *Project Exile* is no exception. Defense attorneys (and some local civil-rights leaders) insist that the Project is *inherently* racist! They claim this because the Project is in effect only within the city limits of Richmond, and the city is 55% black, so there is a disproportionately large number of

***There is no
Discriminat
ion when it***



***comes to
felons who
carry guns***

blacks being charged with federal crimes under *Exile's* auspices, since white-committed crime is more prevalent in the suburbs. This is very reminiscent of the crack cocaine / powder cocaine controversy of a decade ago, where the complaint was about the higher penalties for crack crimes, because crack (smoking) cocaine was a cheap black drug, whereas powder (snorting) cocaine was a more expensive white drug. The liberal solution to the inequality at that time was to *LOWER* the penalty for crack to equal that of powder! Of course, the more conservative approach was to *RAISE* the penalty for powder cocaine to equal that of crack, which thankfully is what happened. Similarly now, the liberal idea is to *STOP* enforcing the federal laws in the city, instead of widening the successful program to encompass the entire state. And, believe it or not, these naysayers have support from, of all places, some of the “esteemed” judges on the federal district court!

If, however, you read the judges’ complaints with a little perspicacity, you may come to realize that they are speaking out of self-interest. One justice cited, Judge Richard L. Williams, wrote the Chief Justice of the Supreme Court criticizing the Project for, among other reasons, being a “*federal power grab*” which did “violence to the concepts of federalism”, and “*pricey*” due to “the cost to national taxpayers is at least three times more” than to prosecute suspects normally. And, of course, the district judges complain of being overworked.

The racism card is brought into play in another manner by a local defense attorney, David Baugh, on the grounds that federal jury pools are drawn from the state as a whole, and Virginia is 80% white, whereas state jury pools are drawn from a defendant’s community, and Richmond’s pools are about 75% black.

These last two criticisms are answered fairly well by Assistant US Attorney James B. Comey, who notes that “*at least* 95% of *Project Exile* defendants plead guilty and never face a jury.”

This is all smoke and mirrors on the part of individuals with personal agendas that are being upset by the success of *Project Exile*. The Left can’t stand the idea that the N.R.A., liberaldom’s version of “The Great Satan”, has come up with a plan that not only has a definitive effect on violent crime and the ILLEGAL use of firearms, it does it without interfering with the rights of the

law-abiding citizen. This is a concept foreign to the liberal mind, whose response is ALWAYS to pass another law which has no effect on criminal activity, but instead makes lawful activity a crime. The difference is simple. The N.R.A.'s effort enforces already existing laws, something the liberals apparently must not want. Otherwise, it would have been done decades ago.

The idea that a federal judge would make the criticism Judge Williams did is unbelievable. If he truly believes that the Project's actions constitute a "federal power grab", then *WHY DOES HE THINK THE LAWS WERE PASSED IN THE FIRST PLACE?* And why does he not act to have said laws repealed, instead of trying to prevent their enforcement? For if some federal gun laws are a power grab, then are not all such laws that infringe upon the Second Amendment rights of the *law-abiding* also a "federal power grab"?

Thankfully, *Project Exile* is gaining support in other cities, such as Philadelphia, PA and Oakland, CA. Hopefully, it will spread nationwide. Because it only discriminates against one class of society, the Criminal class. And, damn the cost.

Is it worth \$2,500 to put a violent criminal away for 5 years? It sure is to me. Only \$2,500 to remove from the streets a possible killer who might take an innocent life. Consider *Project Exile* a form of life insurance

What is your life worth to you?



(Continued from page 22)

By all means bring sunscreen and bug repellent.

This is the first of what is expected to be a long line of outdoor slumber parties, held at different camp grounds all over the State, with the dates to be announced in advance until we settle on a specific weekend of the month.

Camp grounds under consideration for September include Oscar Scherer (between Sarasota and Venice on the Gulf Coast, \$11 - \$18.50/night for four people) and Tomoka State Park, just north of Daytona (\$8 - \$19 per night for two people).

Decisions will depend on camper preferences and availability of campsites.

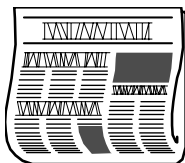


**Attention
Felons...**



**use a gun,
go to prison!**

What Goes Around...



by

**Wynn
Rostek,
Circulation
Chief**

Our old saddle stapler was starting to get a little sloppy, so we decided to break in a new stapler. I had brought a glossy, over-size box with a picture of a jet black and gleaming chrome high-tech stapler with a 16 bit CPU, two megabytes of RAM, and a four by sixteen LCD status display.

When Val opened the box, Kathy and Susan remarked how attractive the new stapler was. It was then that we noticed, in microscopically small print, some assembly required. Words that normally strike fear in the hearts of the brave, but words that have no affect on us, for are we not Mensans?

After a few minutes of fumbling around with instructions in several languages including Yiddish and Sanskrit, we discovered that we needed a pair of N cells to power the processor. Doug Paul was dispatched to the local Radio Shack because we never miss a chance to irritate him.

While waiting for the arrival of the batteries, Helen and J.T. pressed on through the 192 pages of safety warnings, cautions, hazard notices, disclaimers, informational notes, veiled death threats, and offers you can't refuse to get to the next step in preparing our Staplemaster 2000 Deluxe Professional Saddle stapler for use. Ellen was then dispatched to the local office supply store for the special staples required.

While Doug and Ellen were gone, Jon and J.T. poured over volume two of the assembly instructions and discovered that we needed a number 1.7934 Torx driver in order to attach the non-marring super gripper feet. (Apparently cubits don't factor down too nicely.)

Jon departed in search of the required Torx driver. With things quieted down a bit, I couldn't help but notice that Kathy and Susan and Val had almost finished putting together the newsletter with the old stapler.

Not wishing to disturb a finely tuned team, I settled down in a comfortable chair with Volume Three: Loading The Staples. I love it when a plan comes together.



Ellen's Enigmas

1. Four Weddings and a Funeral (1994)
2. Gone With the Wind (1939)
3. Rob Roy (1995)
4. The Music Man (1961)
5. Speed (1994)

Doug's Dilemmas

- 1 [D] Hartford, CN
- 2 [A] Nashville, TN
- 3 [B] Racine, WI
- 4 [E] Franklin, TN
- 5 [C] Stamford, CT

**The
Also-Rans**



**Ellen's
Excellent
Movie Quiz!**

© 1999

by
Ellen Paul

So, you think you know the movies, huh? We know all the characters in our favorite films as well as the actors who portray them, but how much attention do we pay to the important, yet secondary, characters in the movies we watch? This quiz is designed to find out.

Below is a list of five characters, each from a motion picture. The named character was important, but secondarily so. His/her/its name is spoken in the film on several occasions, but no major stars will be found here.

Your assignment, should you choose to accept it, is to name the movie in which the character appears. Good Luck!

1. Hamish Banks
2. Thomas Kennedy
3. Archibald Cunningham
4. Winthrop Peru
5. Harry Temple

(The answers will be found on Page 26)



Where Do I



**Go To
Complain?**

by
Doug Paul

Oh, my...Doug is really seeing red this month! In fact, every company he has complaints for seems to have the letter "C" involved with it somehow. He always knows where to go to bellyache, but I am not sure about his expertise when "C"-sick. Think you can help? Here are 5 well-known companies...match them up to their home cities before Doug runs out of Dramamine.

- 1) Colt Firearms
- 2) Captain D's
- 3) Case Corporation
- 4) Compaq Computers
- 5) Ricoh Copier Systems

- A) Nashville, TN
- B) Racine, WI
- C) Stamford, CT
- D) Hartford, CT
- E) Franklin, TN

(The answers will be found on Page 26)

