VooDoo

"SAFE, SEX ISSUE"

THE M.I.T. HUMOR MAGAZINE
EDITORIAL:

At this time of presidential primaries and political controversy, we Americans must all examine the issues and think hard about the principles our nation is founded upon...Power and Money. Important as it is, though, the upcoming Presidential election is merely a sidelight, drawing attention away from the real focus of importance: Tool & Die.

Consider -- while another leader of a typical, garden-variety superpower is being chosen, the transfer of real, editorial power within the ruling hierarchy of Tool & Die slips by all but unnoticed. The new editor-in-chief achieved greatness in the classic manner. He failed to attend the opening meeting, and was elected to the post. Most people never consider how much more difficult and important it is to be a Tool & Die editor than to be a political candidate or leader. Unlike today's national political figures, Tool & Die people must put in the tremendous effort required to say and do things which are intentionally stupid and funny. We here do the same things national leaders do, but we tell jokes instead of being them. The fact is, the power of the pun can overturn nations -- we are the real seat of power on the planet.

However, we must not forget the basic foundation upon which this great empire of funniness rests. Bucks. We need bucks, big-time. As most of you already know, the Charles River Publishing Company has raised its rates to us by six percent. After endless seconds of agonized discussion, we reluctantly decided to pass this cost increase on to you, the reader. Forced to this by the unrelenting pressures of the global economic environment, we have had to increase the cost of each Tool & Die by six percent. We apologize for this inconvenience, and urge you to help by writing personal checks for large sums of money made out to any Tool & Die staff member. -- A.S.
In its continuing tradition of service to engineering students, *VooDoo's Tool & Die* is pleased to present excerpts from this cartoon introduction to thermodynamics. The complete book is available from the *VooDoo's Tool & Die* office, M.I.T. Room 50-309.

**Winter, 1988**
Chapter 4. The Birth of Thermodynamics

Nicholas Leonard Sadi Carnot
1796 - 1831

was born during the French Revolution, the eldest son of General Lazare Carnot. He had been a toddler in the court of Napoleon I. Then he went to school to learn engineering. After a brief military career, he devoted himself to studying heat engines. His father died in exile in 1824 and the same year Sadi put together everything he knew about heat and engines into a single paper, entitled "Reflections on the Motive Power of Fire and the Machines Equipped to Give Birth to it." It was his only published paper.

The story goes that he wrote the seventy-page pamphlet in one night of delirious inspiration.

In this one paper, Carnot invented the concepts of the reversible cyclic process and the thermodynamic state. Students have been puzzling over these for more than a century and a half.

The next morning he gave it to his younger brother to proofread and critique for him. His brother was to become a still-life painter when he grew up.

So Carnot published the paper with no changes. Today no journal would have ever accepted it.
In a Carnot engine, the most favorable conditions exist for performing work by dissipating the smallest quantity of heat. If we imagine a system consisting of the entire universe and a heat engine:

\[ \Delta W = Q_{in} - Q_{out} \]

Under the best possible conditions, the entropy of the universe remains constant. Since no engine is perfectly reversible, the ENTROPY of the UNIVERSE INCREASES.

Clausius in later years liked to paraphrase the First and Second Laws with the terse and opaque statement:

"THE ENERGY OF THE UNIVERSE IS CONSTANT, THE ENTROPY TENDS TO A MAXIMUM."

Don't look at me like that!

Today, some people like to use this more peculiar statement for the two laws:
"You can't win. You can't break even."
As soon as one thermodynamicist began making obscure declarations about the destiny of the universe, others found it difficult to resist temptation and joined in.

Kelvin used Carnot's reasoning to postulate a thoroughly Victorian form of apocalypse to which he gave the unsettling name:

**THE HEAT DEATH OF THE UNIVERSE**

As long as there exist temperature differences in different regions of the universe, it will be possible for heat engines to work, but:

**UNFORMLY TEPID**

After heat has spread out so the temperature becomes uniform, there will be no temperature differences from which to drive an engine. The universe will be "dead", not by having lost energy (which it can't do) but by having lost the ability to convert the heat that it contains. This is the point of maximum entropy.

As if this weren't chilling enough, Kelvin also measured the rate at which heat is radiated from the Earth's surface and predicted that 2,000 years in the future, the Earth will become ice cold and unable to support life.

Luckily for us, Kelvin did not account for radioactivity, which keeps the Earth warm. Radioactivity was discovered shortly afterward.
Dear Myrna:

In our never-ending quest to serve the M.I.T. community, Voodoo's Tool & Die went to great expense to get Dr. Ruth Westheimer to answer some letters from love-lorn tools. Unfortunately, Dr. Ruth couldn't find time to finish the task. Substituting for her is Myrna Westheimer, a secretary from the psychology department.

Dear Myrna,

I am an M.I.T. freshman, and I've never been on a date before. I want to impress this girl in my 6.001 class. What can I do to show her a good time?

— I. M. Anerd

Dear Anerd,

Any one of the following activities is sure to impress an M.I.T. woman:

- count how many doorways there are in the Institute;
- show her your picture in the freshman handbook;
- see if you can get to every building in the Institute without ever going above ground;
- discuss the history of the Great Sail;
- study the adhesive qualities of Walker butterscotch pudding read romantic short stories to her. I suggest Scientific American or Technology Review;
- send her interdepartmental mail;
- watch Star Trek re-runs together; if it's Saturday night, you can watch the NEW and IMPROVED Star Trek!

Dear Myrna,

I just discovered that my boyfriend has been secretly logging on to Athena late at night. I suspect this behavior has been going on since his freshman year. At first, I tried to ignore the warning signs: piles of documentation — emacs, Scribe, X-windows — all stashed under our bed; pages and pages of laser printouts hidden in the closet. I pretended not to notice him sneaking out and not returning until 5 or 6 am. But then one night I just had to know for sure, so I followed him...to the basement of building 4! I was shocked and disgusted. He said it was just something he had to do, he couldn't explain why. He said it all started when he was a little boy and his older sister made him do his spelling homework on her Xerox typewriter.

I tried to satisfy him by giving him an HP-15C for his birthday, but he said it just wasn't enough. What can I do to make our lives normal? Help!

— I love him but he's a geek

Dear Geek-lover,

It sounds like your man has some sort of bug. In order to de-program him, try gluing hundreds of little keys to your body and make occasional beeping noises. Perhaps then he will pay more attention to fondling you than his terminal. If that doesn't work, try eating his favorite disk. If all else fails, dump him.

--- Jennifer McKenney
Beauty and the Beast

In its continuing tradition of service to engineering students, *VooDoo's Tool & Die* is pleased to present this drawing by William P. Elmer, '22. Mr. Elmer was assigned to draw this illustration for the 1929 volume of *VooDoo*, but finished it a bit late. We finally received it last month.
The Enemy

--- Anthony Schinella

She awoke early, jolted into alertness by a sound from the entrance. Without knowing quite why, Lissa could sense that something was amiss. She looked about her home warily, trying to place the feeling. It was slightly before sunrise, with the first thin rays of light making their way into the cavern. She stopped and listened. All was quiet -- too quiet. No bird made chirp or sound, unlike their usual dawn routine. The eerie silence was unnatural, taut as a bowstring. She waited crouched in the half-light, with all her senses honed to sharpness. A moment later, the telltale clink of steel on stone confirmed her worst fears -- it was an intruder. The Enemy had come.

She was the last, the very last of a distinguished line that went back for ages. For years uncounted her kindred had ruled the surrounding lands. Unchallenged, they had perhaps grown too confident and secure. But what threats could there possibly be?

In their golden age, Lissa's kindred had achieved great things. They had taken in the gold and jewels of the earth and wrought precious works of art. The sciences were advanced, and the mysteries of the earth and heavens were made clear. In the peace and security they then knew, the great thinkers and writers had flourished, all their works now lost or forgotten. It had been an age of light and majesty which had seemed endless to all. Instead, the end came all too soon.

The Enemy had first been noticed generations ago, but there had been no conflict at the time. At first they had seemed harmless enough, for they had not challenged us and there had seemed no conflict of interests. But over time, this changed. The Enemy, it seemed in bitter retrospect, had been watching and waiting, growing more cunning and deadly all the while. But the first reports of the conflicts had occurred only in Lissa's lifetime.

It seemed a bitter lot she had inherited, to live in this cruel age. The first reports were scattered and hard to believe. They came from far away, on the Continent, and seemed too incredible to be true. But in time other, closer, stories came from shocked families that Lissa herself knew. And then when word came that two of her mother-cousins had been slain, the painful truth was too clear to deny.

They had fought back then, in a harsh and brutal war with no quarter asked or given. They had struck back at the Enemy, attacking their homes and supply centers. It was not a war of ideals or principles, or of political differences and points of honor. No, it was a

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war of survival, plain and simple. The struggle was as ruthless and merciless as only such conflicts can be. Both sides fought to protect their own existence, and for the extermination of the other.

For years the strife had raged on in uncounted individual combats, now forgotten by all but one. Her father had fallen, pierced and bleeding, in some nameless field twenty years ago. After that, what remained of the family had retreated to the isolation of the mountain pass where Lissa now hid out, like some animal.

For twelve years they had lived in peace, until the Enemy discovered and hunted them down. Her two brothers had died together in an ambush. Helpless, Lissa had to watch and flee as forty of the Enemy cornered them. They fought back valiantly, but they were trapped. Once there was no hope of escape for the two, a party of the dreaded Warriors appeared, and eventually slew them both.

And now she was alone, hunted, a refugee. No word had been heard from anyone at all in over three years, and she had gone forth at great risk to look for signs of any other survivors. But there were none. She was the last, the very last.

Catapulted to alertness, Lissa sprang to readiness, her mind racing. She had chosen her home carefully, preparing for this day. It could be defended easily against many attackers -- they would not get her easily. She locked her jaw and readied herself, her face a grim and terrible visage.

The first two to round the bend never had a chance. Three more turned and ran, sounding the alarm to the rest. Over a period of time, the Enemy approached several times, and Lissa drove them off each time. Eventually, though, a dozen or more appeared firing at her. She took several hits in the left arm and shoulder, and fingers of pain shot outward from each. She knew she was losing blood fast.

Having just fired, they could not reload in time. She sprang forward to the attack. Among her own, Lissa was no warrior, but she could kill with lethal efficiency when pressed. Several of the Enemy fell, injured or dead, and the rest scattered. She paused for just a moment, thinking of her fallen brothers, and then considered her situation.

Still more of the Enemy remained between Lissa and the exit she now knew she must reach at any cost. She raced forward along her path of escape, engaging the second, more heavily armed, party of the Enemy as she did. In doing so, Lissa was badly injured in the side, and could barely move her left arm. But the joy of battle was upon her, and in combat she was a terror. She became Vengeance, recalling her slain kindred, and none could stand before her.

Limping forward, she made for the exit and for freedom, fighting fiercely every step of
the way. It was only thirty paces away now...twenty...ten. Surging forward with a last burst of energy she made it out into the sunlight, leaving the broken Enemy behind her. She had made it -- she was free.

Lissa's joy at escaping knew no bounds, but a moment later it froze and shattered under a hammerlike blow of realization. For in the distance there loomed a Warrior, the sunlight gleaming off its cold exterior. It marched steadily towards her with a cool, measured stride of execution.

Bracing for battle, Lissa faced it. They stood before one another. No word was spoken, no challenge made, but both knew that only one or the other would live past this day. Both absorbed this fact, accepted it, and engaged each other with a cold fury.

Injured and bleeding, Lissa was still a formidable opponent. With a cry of battle she struck out, bringing a powerful blow down upon its left side. It raised its plate, saving itself, but the force of the blow still drove it knew she had to deliver a fatal blow soon. She was losing blood, and ground, and the combat was starting to turn against her. She lashed out with a vicious lunge, then disengaged and backed off. It followed, pressing its advantage. Seeing that it could no longer protect its vulnerable top, Lissa stood erect and raised her forearm for what must now be the killing blow...

...and it made one last, mighty strike at her exposed right side. The blow pierced between her ribs, and struck deep inside. Lissa fell forward and breathed her last, cursing and spitting defiance to the end.

Sir George, cradling his broken left arm, rose to one knee and then stood up. Looking about him carefully, he surveyed the damage. His own squire was dead, as were at least a dozen of his retainers and men-at-arms. And he himself was grievously hurt, despite a really fine set of plate. He walked about, taking in the entire scene and seeking intently for something. And then Sir George, realizing the situation, exploded into a fit. He'd just slain a dragon -- a goddamned BIG one, that --- and there wasn't a single gold coin to be seen anywhere.

"Input...output...input...output - give me a hard drive!"
"I love it when you talk low-level."
"Harden that floppy!"

Unfortunately, they may not respond properly to your input. Be prepared to handle errors accordingly. Bear in mind that computer scientists do it...in theory. Real programmers do it bit by bit. Typical problems and solutions:

"Incompatible types" or "input too large" -- stop the process and try to restart the action.
"Core dump" -- clean up.
"Hard error" -- softboot, hardboot, or fastboot, as appropriate.
"Serious exception! invalid input" -- back off and calm them down.

For the adventurous, you can try interactive things like "multi-user", "multitasking", or "timesharing" arrangements. If your partner is really kinky, you can go for the more offbeat ideas, like "mouse input." But be sure to remind any partners to "reset their protection", or you may get viruses in your software. Failure to protect your input when inserting into someone else's drive could result in serious alterations to your program. Be careful, and remember always: safe sex -- use a write protect tab!
Professor Skaggs Analyzes: The Last Episode of the Brady Bunch

The Brady Bunch television series has undoubtedly had more influence on American culture than any other. In the words of one historian, it was the "causal faux pas of the Seventies." Unfortunately, the series had aired only five years, when it was abruptly cancelled mid-season in 1974. Little was said about the cancellation, and little is known today, except for a rambling statement made by a middle-manager of CBS in 1975 about "aesthetic conflicts." Perhaps most disturbing about the cancellation was the lack of an ending to the series. It was a novel without a climax; an episode without a clincher; a musical movement without a cadence. What was promised to be the final, tumultuous ending never aired, preempted instead by a Bob Hope Christmas Special, with then-10-year-old special guest Brooke Shields.

This last Brady Bunch episode was indeed filmed, but the only print was destroyed "for personal reasons," and hence the episode never made it into syndication. The few copies of the script were burned or discarded, all but forgotten. One of my graduate students, however, while doing research for his doctoral thesis on the "movement habits of major situation-comedy characters," unearthed fragments of the script from a wastebasket in an abandoned office building in Los Angeles. The student, Bob Dentworth, was researching in particular how "the Brady Bunch characters always travelled around the house in pairs, such as Bobby with Cindy or Greg with Marsha," when he stumbled upon the script and sent it to me for analysis.

Keep in mind two important facts as you read the script: one, the writers of the episode knew the show was to be cancelled, and in the words of one "didn't give a shit"; and two, what was planned to be ten more years worth of character-developing episodes had to be compacted into one 22-and-a-half-minutes show. We begin with page one of the script:

[Titles and theme music.]
The kitchen. Marsha has set up an ironing board and is ironing her hair. Alice is preparing food in the background. The music continues as Marsha irons.

[The music fades. Greg enters from the living room.]
Greg: Bitch. [Greg grabs iron, and with it presses Marsha's head down on the ironing board.]
[Audience laughter.]
Marsha: Ow! Greg!
[Mike and Carol enter from the family room.]
Mike: Shut up, Alice, I'm sick and tired of your attitude.
Carol: Greg, don't you think you should let your sister up?
Greg: No.
[Mike and Carol enter from the family room.]
Mike: Carol, just shut up! I'm sick and tired of your goddamned yellow polyester clothes! You look like a fucking pear!
[Audience laughter.]
Alice: Gee, Mr. Brady, hard day at the office?
Mike: Alice! Shut...the fuck...up! [Hits Alice with rolling pin.]
Alice: Gee, Alice, does this mean we're not having stew for dinner?
[Bobby and Cindy enter from the living room.]
Bobby: Shit souffle, vomit and potatoes, shithcake, and urine.
[Audience laughter.]
Alice: I'm not kidding, either.
[Bobby and Cindy enter from the living room.]
Bobby: Mr. Brady, we're not having stew for dinner?

The remainder of this page of the script is torn off, and a number of the following pages are missing. The next fragment of the script apparently takes place in the dining room, with the family seated around the table for dinner:

Peter: What's for dinner tonight, Alice?
Alice: A special tonight: Shit souffle, vomit and potatoes, shithcake, and urine.
[Audience laughter.]
Alice: I'm not kidding, either.
[Audience laughter.]
[Alice serves shit souffle, vomit and potatoes, shithcake, and urine.]
[The family is morose. Extended pause.]

Here it must be noted that, for the first time in the
series' history, Alice is no longer her dapper self. Perhaps it was Mr. Brady's actions earlier in the day that caused this condition.

Peter: Marsha, how did you get that big burn on your face?
Marsha: [looking at Greg] Someone tried to iron my face.
[Audience laughter.]
Greg: [looking at Marsha] Well, it wasn't me, I can tell you that much.
Cindy: It wasn't too, Greg! I thaw you!
Greg: Shut up, Cindy!
Mike: Hey! [throws his cup at Greg, which shatters in his face] No arguing at this table! Jan, finish your shit.

Since we are unable to view the film of this episode, we can only imagine the comic situation here: Marsha with a second-degree burn on her face; Alice wearing a charred apron, and Greg with glass shards in his face. Perhaps this is the reason for the next line in the script:

[Audience laughter, sustained for five minutes.]

Let us pause here to analyze the action thus far. The primary conflict seems to be between Greg and Marsha. Or is it between Mike and Alice? What did Marsha do that so angered Greg? And what happened to Mike that caused him to take out his aggressions on Alice? These questions, of course, are resolved in the next segment of the show. Unfortunately, here are are missing several pages of the script. The next fragment we do have, though, follows:

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Graduate student Bob Dentworth: "I have this sinus pain. It starts here, it moves here, and it throbs."

Alice: Well, Mr. Brady, I think I've already made my sacrifices!
[Audience laughter.]
[Commercial break.]

The third and final segment, the "clincher," has a double duty in this episode: it must not only clinch the episode, but the entire series. Let us see how well it performs:

[Mike and Carol's bedroom. Mike and Carol are sitting in the bed.]
Mike: You know, it's a good thing I beat on Alice and not you.
Carol: Oh? Why's that?
Mike: Because if I did it to you, we'd probably be sitting in a hospital bed!
[Audience laughter.]
[Audience applause.]
[ Fadeout.]
[Closing credits.]

This is perhaps a bit lame for a clincher, but there have been worse.

The format of this final episode followed the structure of all previous *Brady Bunch* episodes: exposition of the problem, development, plateau, resolution, and recapitulation. The exposition, however short, consisted of Greg's calling Marsha a bitch, establishing the problem and primary theme. The development, of course, was the ensuing hijinks between Greg and Marsha, and also the concurrent secondary theme of Mike's beating of Alice. The plateau, the high point of suspense, took place at the dinner table. The resolution of the problem consisted of the apologies, and Mike and Carol's pillow-talk made up the clinching recapitulation.

Although this episode has been called by some "a bit muddled" and "rushed," it is nevertheless in my view an appropriate ending to the saga. Said Ann Davis ("Alice"): "Everything in that episode made a big casserole."
To Members of the M.I.T. Community:

Recent confusion and controversy has prompted the Institute Committee on Films to clarify and restate the Institute's policy on the showing of films on the M.I.T. campus. The new policy is as follows:

All proposed films must first be screened by the Film Committee. The Film Committee shall consist of the Dean relevant to this situation, as determined by the Institute Committee, the Dean's wife, and his eight-year-old son, Jason. The committee shall be governed by the following guidelines for approving films:

1. All characters in the film must be treated equally. No character may be implied to be "better" than any other character. Exceptions:
   a. There are clearly discernible "good" and "bad" guys. If this is the case, the "bad" guy may be portrayed as "more evil" than the other characters. The "good" guy(s), however, must maintain respect for the "bad" guy's existence as a human being.
   b. The character is inanimate. If this is the case, said character may be portrayed as non-human.

2. After viewing the film, the audience must emerge from the theater, classroom, or dormitory room feeling uplifted and optimistic about the human condition.

3. The Committee otherwise feels the film should or should not be viewed by M.I.T. students.

This policy is retroactive to January 1, 1987, and covers all films and videotapes, fiction or non-fiction, viewed by M.I.T. students on or off campus.