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COVER

"Hidden Danger" has a special status among DRAGON Magazine cover paintings it's the only work of art we've ever printed that almost died of old age before it appeared. Larry Elmore, the good ol' boy of TSR's art department, offered us this painting as a cover piece a couple of years back. We were glad to get it, and Larry agreed to let us hold onto it as an "escape hatch," to be used if our supply of covers ever ran a little low. Well, that hasn't ever happened, but we finally decided it was high time to use it anyway. Now maybe Larry will do another cover for us. . . . Larry? Larry?



Modern-day akasa

Dear DRAGON,

I found "The laws of magic" in issue #106 extremely helpful. It has opened new doors for my campaign plans. I would like to incorporate some twentieth century adventures for my players by sending them to a modern world. Consequently I have some questions. Does akasa exist in modern times, or has it "burned out"? If it does, my magic-users and clerics will have magic (and metamagic) ability. But what of modern people? Can a magic-user teach a twentieth century person to manipulate the akasa? And can modern clerics receive spells?

> Bryan Winter Ann Arbor, Mich.

The answers to these questions depend on how you define "a modern world." Within the context of the game, we can call it a parallel world, one of the infinite number of alternate Prime Material Planes that exist in the multiverse of the AD&D® game.

But is a twentieth-century world one in which magic works the same way that it does in the player characters' native world? Personally, I'd say it's not. Taking a cue from Robert Schroeck's reasoning in The City Beyond the Gate (issue #100), you can rule that this particular parallel world is too far removed from the source of akasa (the PCs' home world) and thus is "magically null," as Robert put it. Visitors from the PCs' home world could use the spells they had stored in their minds when they made the trip, and they might be able (by praying or studying) to regain certain spells while they're there. But natives of the alternate world can't manipulate the akasa, either because it doesn't exist, it isn't strong enough, or they are simply incapable of doing so.

Of course, the other view is that (for the sake of your version of the game or the sake of whatever adventure you've concocted) magic does work on this parallel world the same way that it works on the Prime Material Plane that the PCs came from. If you're willing and able to make this theory work in practice, more power to you. It seems like a mind-boggling task to me, but maybe your mind doesn't get boggled as easily as mine does. — KM

For humans only

Dear DRAGON,

In Christopher Wood's article on "paladins" (issue #106), it is said on page 46 that "These paladin types are also exclusively human." On page 55 in the description of the Arrkihan, it mentions halflings and dwarves as eligible in that class. So are these classes open only for humans, or can other races be part of them?

> Sylvain Robert Trois-Rivieres, Quebec

In a word ... oops. During our review and editing of the manuscript, we decided to insert the stipulation (on page 46) that these classes were for humans only, since the regular (lawful good) paladin was also originally designed as a human-only class. Unfortunately, we neglected to remove all the demi-human references from the later sections of the manuscript. (Hey, folks, we're only human, too.)

It's pretty easy to tend to the things we forgot; just delete references to demi-human members of these classes wherever they appear: To fix the "Race of follower" tables, combine the entries for "human" and "same race as the (whatever)" into one category with a single die range; for instance, on the myrikhan table a result of 9-18 indicates a human follower. — KM

Invisible problems

Dear DRAGON,

According to the author of the article "Seeing is believing" (issue #105), "About 2' is how far the invisibility extends." If the invisibility extends in all directions, the floor below him would be invisible for 2' down and over at an upward slope. Isn't there a special ruling that he [the author] should have made about this? If not, invisibility is useless because when a moving patch of invisibility saunters into a room. it would take a *really* dumb monster not to know something was amiss.

Brian Roessler New Providence, N.J.

Dear sirs:

Physical invisibility, as described by "Seeing is believing" (#105), is caused by bending light waves around the object so made to vanish. Such a method would undoubtedly cause the recipient to become temporarily blind. This is because no light could reach the one rendered invisible.

A similar problem is reached if one considers a substance that renders the subject perfectly and completely transparent, to the extent of eliminating light refraction, as in *The Invisible Man* by H.G. Wells. This is because light would pass through the retina unless one considers the Detection of Invisibility Table (*DMG* p. 60) is for determining of you notice a pair of eyeballs floating about the room. This does not matter if the object is inanimate or if blindness would not normally affect it, but a PC would usually suffer even more than the monster he is attacking. Erik Burch

Stuyvesant, N.Y.

These and other letters we've received about the invisibility article demonstrate how difficult it can be to describe an imaginary concept in concrete terms. Brian and Erik have made good, logical points, and the only way I can see to address them is to make arbitrary and pragmatic judgments about how to handle those aspects of invisibility in the play of the game. We encourage our authors not to be arbitrary and pragmatic, which is why problems of this sort are sometimes (Turn to page 97)

The joke is not on you

This issue of DRAGON® Magazine is a concession to those of you who think that April Fool's features are a waste of space. This column is dedicated to those of you who think the opposite. Because of last year's fiasco, we (in other words, yours truly) decided not to use any Foolish stuff in this year's April issue.

Time does heal all wounds, but the process is sometimes a slow one. Up until a month ago, we were still receiving letters of outrage and expectation from people who misunderstood the intent of the face-tious column and the facetious letters to the editor that appeared in issue #96, and who apparently didn't see the apology/ retraction in #98.

I don't want to go through anything like that again, nor do I want to disappoint or distress any of you. I also don't want to further irritate the people who thought "Nogard" was a stupid module. (Of course it was stupid. That was the point.) For those of you who enjoy and appreciate Foolish stuff, I hope this column will serve as an explanation so that you won't have to spend time and effort writing in to ask why we didn't acknowledge the day like we've usually done.

Mean and cruel humor is not funny, and we've never purposely indulged ourselves at the expense of your feelings. But apparently it's hard to know in advance what will be seen as cruel humor. Like I said in #98, if I thought that anyone would think that "Howe Audacious" was a real person, I wouldn't have used that letter.

It isn't my intention to disappoint anyone who enjoys funny stuff, and I apologize to those of you who feel that way. But that's the way it has to be . . . at least until next April. In the meantime, keep reading and keep smiling.

Molia

The World Gamers Guide

If you live outside the continental United States and Canada, you can be included in the World Gamers Guide by sending your name and full address, plus your gaming preferences, to World Gamers Guide, DRAGON® Magazine, P.O. Box 110, Lake Geneva WI 53147 USA.

Abbreviations in parentheses after a name indicate games in which that person is especially interested: AD = AD&D® game; DD = D&D® game; CC = CALL OF CTHULHU®

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The World Gamers Guide is intended for the benefit of gamers who live outside the continental United States and Canada, in areas where nearby gamers are small in number or nonexistent, as a

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way for them to contact other gameplayers who would be interested in corresponding about the activities that they enjoy. Unfortunately, we cannot extend this service to persons who live in remote areas of the U.S. or Canada, or to U.S. military personnel with APO or FPO addresses. Each eligible name and address that we receive will be published in three consecutive issues of DRAGON® Magazine; to be listed for more than three issues, you must send in another postcard or letter.

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I would like to offer my congratulations to Lawrence Lerner, whose Forum article appeared in #106. His letter was well written, soundly argued, and mathematically accurate. His suggestion is very reasonable, and would be a great help to many people facing the problem he mentioned (staggering and apparently unreasonable memorization times for high-level MU's).

Nevertheless, I will not use his system, and I do not recommend it. I agree completely that a 29th level magic user would take about a week to memorize all of his spells from scratch (allowing for sleep and eating) . . . an absurdly long time, on the surface. However, I submit that this is exactly how things should be.

Firstly, there cannot be too many magic users who survive to the 29th level, much less very many 29th level MU PC's. But this point isn't germane to the discussion.

One must consider that the power to defy the laws of nature at will (a fair description of spell casting) is the greatest personal power a PC can have in the game, and, as such, is most liable to abuse, and most liable to upset game balance (oh, no, another "game balance" preacher . . .).

I remember how shocked I was when I realized the intent behind the memorization system: it is to limit the power of spell casters. A spell caster is meant to be encouraged to carefully consider whether it is opportune to cast a spell, for it should not be easy for him to recover it. This applies just as well to Flimflam the Prestidigitator as to Mordenkainen.

A well-played MU, at any given high level, should never find himself so plagued by circumstances as to have exhausted his entire arsenal of spells . . . for to be so is to be helpless. An extraordinarily hard week's campaigning might well leave him needing several full days to recover all the spells he has used, and that is just as it should be . . . for a week's hard campaigning may leave the high-level fighter needing several full days to knead muscles, refuel his hard-working limbs, and rest! A week's hard campaigning might leave the thief with critical eyestrain and nearly uselessly stiff fingers. Why should a high-level MU not also need a significant amount of time to rest his overworked mind?

I don't want to belabor the point. I feel that the system stands as written. I feel that giving the intelligent MU the ability to learn 58 spells in a day is asking for trouble.

> Lyle P. Wiedeman III Santa Ana, Calif.

* * * *

I was somewhat surprised to note, in the DRAGON #105 article entitled "The Rest of the Papers," that your editors felt that it would be possible to use a spear or lance from the back of a centaur. Even with penalties "to hit," I don't think you fully appreciate the difficulty of what you suggest.

Centaurs make good shock troops because their spears' effectiveness is increased by the speed and mass behind them. The medieval knights were able to have a similar effect only because of the use of stirrups. Since centaurs don't like to use saddles, the use of spears or lances from their backs is virtually impossible. Also, since centaurs are rather undisciplined, their riders would be unable to control them in a charge. What is worse is that the riders would not even be able to anticipate sudden movements by the centaurs. In the heat of a charge, a centaur veering to avoid an enemy weapon or to adjust his own attack could easily leave his rider laying on the ground facing the possibility of being trampled by his friends.

If enough willing centaurs could be found who would undergo extensive training in the use of riders it might be possible to create a form of centaur cavalry. This is extremely unlikely and the riders would still be somewhat less effective than horse mounted riders. In fact, it seems to me that a rider who tried to use weapons in combat while mounted on a centaur might also impare the centaur's combat abilities. All in all, I think that the use of centaurs with riders in combat would be an inefficient use of the forces available.

Mark Morrison Mt. Vernon, Ohio

* * *

I am writing this letter in response to Lawrence Lerner's in #106, in which he complains that it takes too long for high-level magic users to memorize their spells. I personally think that it is good that they do. It seems only logical that a 29thlevel archmage will spend more time poring over old musty tomes of spells than will a 1st-level prestidigitator.

Even if one assumes that this rule (the one in the DMG) is bad, the solution Mr. Lerner gives hardly solves the problem. With it, the "problem" of high-level magic users is not cured, only lessened for characters with high intelligence. A solution allowing for high-level MU's to learn spells faster would consist of this equation: $CL/(2 \times SL) = T$; in which CL is the level of the character learning the spell, SL is the level of the spell, and T is time in hours.

Assuming one wants to go to the trouble. R. W. Clark

Gettysburg, Pa.

* * * *

I have been following the current "good" discussion with some curiosity of late. It seems that the two groups discussing the topic are either of the opinion that there is only one "good" which is a definition of moralistic and ethical actions and behavior, or that "good" is relative to the individual involved.

I hold the opinion of the former group, where "good" defines a certain means of acting in relationship to all others, in that killing is evil unless it prevents the occurrence of further evil, where honesty and integrity are important, where the swing of preference is based more on the group, as opposed to the individual (although this is contained somewhat in law and chaos, I think it does find some association with good and evil as well).

However, one has to remember that killing any

creature that stands in one's way just to derive the benefit of a few gold coins, or the boost of the ego that killing might provide, may be right as far as the creature concerned goes. It isn't good; such an action definitely is an evil one in regards to both the creature involved (let us suppose, for example, an orc) and a good creature viewing the same situation (perhaps a paladin or ranger). The orc knows his actions are evil, but by the same token, they are also right and further the ends that the orc wishes to obtain (even if those ends are based largely on instinct and fear as opposed to intelligent decision). In the same manner is the case [of] a paladin who is about to deliver the death blow to, say, a chaotic neutral thief, who might have been attempting to steal items from the paladin, or trying to backstab him (or her) to steal items from him. Combat might be necessary for self-defense and should the paladin get to a situation where the thief surrenders, the paladin may well let the thief go as long as his safety were not in jeopardy. This is a fundamentally good act, as the paladin is sparing the life of another creature, and this being may well appreciate the doings of the paladin and in turn begin to embrace the lawful good ethos due to its good treatment of the thief. However, to an evil demon, this would be a wrong act. It would be proper to kill the thief, since he cannot be trusted, and it helps clear the demon's mind about paltry backstabbers like this (even if the demon is one himself).

What I'm basically trying to say, perhaps, is that we should try to distinguish "right" and "wrong" from "good" and "evil." They are not necessarily the same, even though they could be. Good and evil are predefined standards by which all other creatures are measured; right and wrong, descriptors which vary from individual to individual. It's important to keep this in mind, as it appears this discussion is becoming fairly heated and has probably stirred the thoughts of many a group of campaigners.

> Jim MacKenzie Regina, Sask.

After reading the letters that appear in this department month after month, I have discovered that a lot of people have "suffered" from Monty

that a lot of people have "suffered" from Monty Haul campaigns. I agree with them to some extent; Monty Haul campaigns are a blatant perversion of the basic concept of the game. But not always is the end result a worthless campaign. I started playing the D&D game about two years ago. That's not a long time, I know, but I have experienced so much in that time. During my first campaign I lost over ten characters, as did my fellow players (due to poor playing, I confess, but I didn't know it then).

After a while, this gets discouraging. So then my friend and I started a couple of one-on-one campaigns ourselves. Since our previous D&D. experiences ended in dead characters, our new ones seemed to always barely escape with their lives (with a little help, of course). Soon, the thought of Rothgar the Mighty dying was unthinkable and unlikely. Power and awesome magic soon became commonplace and easily obtainable, since dragons now cause no problems (I went up eight or nine levels just by killing dragons!).

All this was not a waste, though, it gave us a taste of having high-level characters (which we all want). Now that we've had our taste, we don't have power-greedy characters any longer. We enjoy lower-level characters as much or more than the powerful 22nd-level juggernauts that just rolled over Wyrmsteeth Range; they're more *(Turn to page 95)*



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by Lenard Lakofka Creating tailor-made monsters

A monster, as described in the AD&D® game rule books, generally has a set number of hit dice. Its hit points are usually determined by recording the sum of the rolls of that number of eight-sided dice. Some monsters then add a one-time bonus, if their hit dice are given in the form x + y. Of course, there are exceptions to this: Dragons, for instance, have a number of hit dice and hit points which equates to their age level.

The "set number of hit dice" rule also does not apply to many types of humanoids, where the number of hit dice may be different for adult males, adult females, and young of either sex. However, the system for dragons is the only one that takes into account the concept of a creature gaining more hit points as it advances in age. It is not especially difficult to create such a system for other monster types, and along with that to adjust the system for experience-point calculation. By doing this, we can help insure that player characters get a proper amount of credit for killing monsters with many hit points — and also a proper (smaller) number of experience points for killing younger (and thus weaker) monsters with fewer hit points than a full-grown adult.

THE GROWTH PROCESS

Let's begin by looking at the maturation of an animal and a "monster," using a tiger and a manticore as examples.

A full-grown adult tiger has 5 + 5 hit dice, armor class 6, three attacks for 2-5/2-5/1-10 points of damage, and a chance for two more attacks doing 2-8 points of damage apiece. Now, we start at the other end of the scale and work up to these figures. Let's say that a newborn cub has 1 hit die, armor class 10, one attack (bite) for 1 point of damage and no chance for a special attack. As the cub grows to adulthood, its statistics will change to reflect its increasing toughness as an adversary.

Why is armor class included in the statistics that change with age, and why is the change so great (from AC 10 to AC 6)? Because armor class reflects not only the natural toughness of a creature's hide but also the creature's ability to move quickly and smoothly to evade an attack. A newborn tiger does not have the thickness of coat nor the toughness of skin that an adult would have, and the cub also does not have the coordination and quickness of a full-grown tiger. It is within your right as a DM to adjust armor class for an especially quick or agile animal or monster, just as you would (according to the rules) for a player character with exceptionally high dexterity. A healthy, mature tiger that you judge to have exceptional dexterity might be given an armor class of 5 or even 4.

Growth stages of a tiger

					Rear	
Age	HD	#Att	Bite	Claws	claws	AC
Age Newborn	1	1	1	nil	nil	10
1-3 mos.	2	3	1-4	1/1	1/1	9
4-6 mos.	3+1	3	1-6	1-2/1-2	1-2/1-2	8
7-9 mos.	4+2	3	1-6	1-4/1-4	1-4/1-4	7
10-15 mos.	5+3	3	1-8	2-5/2-5	2-5/2-5	6
16+ mos.	5+5	3	1-10	2-5/2-5	2-8/2-8	6

Naturally, not everyone will agree with the specific numbers in this example; it's the concept that's important here, not the precise way you might see fit to put the concept into practice. I don't know how fast a tiger really matures; if you do, then perhaps you'll want to use figures that better reflect that reality.

If the example of the tiger is subjective, then this next example is even more so – because nobody really knows how rapidly a manticore matures, do they?

m · · 1

Growth stages of a manticore

					Tail	
	HD	#Att	Bite	Claws	spikes	A C
born	1	1	1	nil	nil	10
mos.	2	3	1-3	1/1	6x1pt.	9
nos.	3+1	3	1-4	1-2/1-2	12x1-2	8
nos.	4+2	3	1-6	1-2/1-	2 12x1-4	7
mos.	5+3	3	1-6	1-3/1-3	18xl-4	6
mos.	6+3	3	1-8	1-3/1-3	24x1-4	5
mos.	6+3	3	1-8	1-3/1-3	24x1-6	4
	born mos. nos. mos. mos. mos.	born 1 mos. 2 nos. 3+1 nos. 4+2 mos. 5+3 mos. 6+3	born 1 1 mos. 2 3 nos. 3+1 3 nos. 4+2 3 mos. 5+3 3 mos. 6+3 3	born 1 1 1 mos. 2 3 1-3 nos. 3+1 3 1-4 nos. 4+2 3 1-6 mos. 5+3 3 1-6 mos. 6+3 3 1-8	born 1 1 1 nil mos. 2 3 1-3 1/1 nos. 3+1 3 1-4 1-2/1-2 nos. 4+2 3 1-6 1-2/1-2 mos. 5+3 3 1-6 1-3/1-3 mos. 6+3 3 1-8 1-3/1-3	HD#AttBiteClawsspikesborn11nilnilmos.231-3 $1/1$ $6x1pt.$ nos.3+131-4 $1-2/1-2$ $12x1-2$ nos. $4+2$ 31-6 $1-2/1-2$ $12x1-4$ mos. $5+3$ 31-6 $1-3/1-3$ $18xl-4$ mos. $6+3$ 31-8 $1-3/1-3$ $24x1-4$

Having monsters grow up gradually like this gives you more freedom as a DM when designing encounters. If a single 1st-level fighter encounters a single tiger, it need not be a full-grown adult tiger but could be a less powerful youngster. This would make it easier for the fighter to survive the encounter and defeat the tiger and, of course, this would also mean that the fighter's experiencepoint award for doing so would be lowered accordingly. Likewise, if a group of player characters encounters a group of monsters of the same sort, there is no reason why all those monsters would necessarily have the same hit dice and damage capability.

THE AGING PROCESS

Now that we've taken monsters from birth to maturity, it's time to deal with the other part of the life cycle. The Dungeon Masters Guide provides a system for the aging of player characters; the handling of animals and monsters in the campaign can benefit from an aging system, too.

Obviously, we can't express the effects of monster aging in the same terms used for characters, since most monsters don't have definable scores in strength, dexterity, wisdom, and constitution. But what we can do is translate the effects of aging into the characteristics that make monsters what they are - in other words, hit dice, armor class, and damage capability.

Suggested alterations to account for aging are summarized in the following table, which begins at the young adult stage (where the growth tables leave off) and proceeds through the venerable age category. The figures given here would probably work best if they are only applied to monsters of 4 or more hit dice; statistics should be adjusted downward (closer to zero, or no change) for creatures of 3 hit dice or less.

Age	Hit dice	Armor class	Damage
Young adult	+ d4 (d8)	-1 (30%)	+1 or +2
Mature	+ d6 (d10)	-1 (50%)	+1 to +3
Middle age	+ d4 (d20)	-1 (10%)	-1 to +1
Old	-d6 (d12)	+1 (40%)	-1 to -3
Venerable	-d8 (d10)	+1(70%)	-1 to -4

How to use this table

Each entry in the "Hit dice" column shows one die range as a

positive or negative quantity plus another die range in parentheses. Roll the type of die indicated in parentheses; if the result is a value that could be obtained by rolling the other die given, then add or subtract that number of points from the monster's hit-point total and change the monster's hit-dice designation accordingly, if necessary.

As an example, let's go back to the tiger, which "tops out" on the growth table at 5 + 5 hit dice. In other words, it will have a number of hit points in the range from 15 through 45, and it will attack as a 6 HD monster (according to p. 75 of the *DMG*). The animal will not grow any larger physically, but it may gain a few hit points for being in the young adult age category: Roll d8, and if the result is 1, 2, 3, or 4, then add that number to the animal's hit-point total. Also add this number to the tiger's *effective* hit-dice figure of 6, so that the resulting value is anywhere from 6 + 1 to 6 + 4 — and remember that if the result is 6 + 4, then the tiger will attack as a 7 HD monster. If the d8 roll was greater than 4, then the tiger remains at 5 + 5 HD and whatever hit-point total the animal already had (but it is still eligible for changes to armor class and damage by virtue of being a young adult).

The same procedure applies for reductions. If you decree that a tiger is venerable, then roll d10. If the result is between 1 and 8 inclusive, subtract that many points from the tiger's maximum hitpoint total and also adjust its effective hit dice for attack purposes if necessary. If a 1 or 2 is rolled, the tiger is still effectively a 6 HD monster; if the result is between 3 and 8, the animal is reduced to a 5 HD monster. (For a subtraction that crosses the "barrier" between hit dice, consider 5 hit dice to be equivalent to 4 + 8; in other words, subtracting 8 from 5 + 5 yields a result of 4 + 5.)

Under the "Armor class" heading are given an adjustment and a chance for that adjustment to occur. A young adult has a 30% chance of having an armor class that is one step lower (better) than normal; a venerable animal has a 70% chance of having an armor class one step higher (worse) than the usual figure.

The "Damage" column gives suggestions for alterations that you can apply when you deem it appropriate to increase or decrease the normal damage figure (or figures, for creatures with multiple attacks). You may wish to rule that a monster is not eligible for an improvement in damage capability unless it also gains hit points and a benefit to armor class, or you may assign extra damage capability to an otherwise normal monster; it is possible that a tiger could have the usual number of hit dice and armor class, but be able to do more damage because of extra-sharp teeth or extra-long claws.

HIGHER HIT-POINT TOTALS

Few things are more discouraging to a DM than placing a "terrible" monster guarding an important treasure and then watching the party blow it away in a few rounds (or sooner). This sometimes happens if the monster is handicapped by the "glass jaw" of lower than average rolls for hit points. You rolled the proper number of hit dice, and lots of them came up 1, 2, or 3. You want to be fair and go by what the dice dictated (after all, that's what player characters have to do), but you don't feel right about leaving things the way they are. One obvious solution is to simply roll the dice all over again, but there's no guarantee that the second set of rolls will be any better.

The other way to prevent this problem is to modify how the hit points are determined – with the understanding, of course, that this tactic is only used in special situations where a properly challenging encounter requires that the monster(s) be tougher than average. There are two common methods for achieving this goal:

1) Guarantee a better-than-average hit-point total by using d6 + 2 or d4 + 4 for each hit die instead of d8. This has the same effect as rolling eight-sided dice but then re-rolling any results lower than a certain cutoff point — usually 1 or 2, but perhaps as high as 3 or 4 for certain monsters or certain situations.

2) Increase the chances of getting a tough monster by using 10sided or even 12-sided dice instead of eight-siders. Before you roll, decide whether or not you will allow the total to exceed the maximum attainable with eight-sided dice; a tiger generated with 12sided hit dice will have an average of 38 hit points, which seems reasonable if a tough tiger is desired — but if you don't decide to cut it off at 45 (the normal maximum), then it could have as many as 65 hit points, and that might be going too far. By the way, if you do decide to allow the hit-point total to exceed the normal maximum, you should still keep the tiger at its normal hit-dice figure for attack purposes. Making a tiger with 65 hit points that also attacks as a 14 HD monster is definitely stretching the intent of this advice beyond the breaking point.

A NEW DESIGN FOR DRAGONS

There's a problem in the way dragons are handled in the rules, but it has nothing to do with the rules themselves. A system of one hit point per hit die per age level is fine, but knowing this gives players an advantage they should not have. The players should not be able to calculate a dragon's hit points and breath-weapon potential after the first time the PC party is hit by its breath weapon. Alas, the rules do inadvertently allow this sort of behavior: If the players have discovered that a dragon does 28 hit points of damage with each breath that hits, then a fighter with 29 hit points will rush forward to get in that one last killing stoke while on with 27 hit points will run the other way. How to avoid this? Try the reconstructed dragon. as described below:

Age level	Hit points *	Breath attacks	Other attacks
	d2xHD	1 (50%) or 2 (50%)	25% of adult
2	d3xHD	2 (50%) or 3 (50%)	50% of adult
3	d4xHD	3	75% of adult
4	d4+1xHD	3(50%) or 4 (50%)	adult
5	d4+2xHD	3(25%) or 4 (75%)	adult
6	d 4 + 3 x H D	4	adult
7	d6+4xHD	4(50%) or 5 (50%)	adult + 10%
8	d 8 + 4 x H D	5	adult + 25%
*	- Also used to	calculate damage each	time breath weapon is

^{*} - Also used to calculate damage *each* time breath weapon is used.

This system makes dragons slightly stronger (more hit points) on the average, gives most dragons more frequent use of their breath weapons, and varies claw/bite damage according to age. (Old dragons don't get weaker, they get better.) Most importantly, it considers hit points and breath damage separately; hit points are rolled once, when the dragon is generated, but damage from a dragon's breath weapon is rolled on every attack instead of being a constant number. Is all of this too much? No, it isn't. Consider this example of an ancient (age level 8) dragon with 9 HD:

The dragon will have anywhere from 45 to 108 hit points, with the average result being 76½. Likewise, each use of its breath weapon will do from 45 to 108 points of damage – but that is a variable, not a fixed amount. The average damage of 76½ compares favorably with the official system, where the dragon's breath would do 72 points of damage on each strike. (Optionally, you can retain the fixed calculation for hit points and still use this system for breath damage, if you don't like the idea of an ancient dragon with only 45 hit points.)

After one or two encounters with these "new dragons," it will be obvious to players that they can't dictate their characters' actions on the assumption that the dragon will do a fixed amount of damage with its breath. Imagine their surprise when an ancient dragon breathes for "only" 50 points of damage in one round — and follows that up with a 100-point blast the next time it opens its mouth!

MORE FOR TOUGHER MONSTERS

Monsters can be made more formidable, within the context of an adventure or an encounter, by simply taking full advantage of the situation. Give a monster, or a group of monsters, a few allies. These don't have to be henchmen, hirelings, or slaves. They can be unwitting or unwilling accomplices.

Let's set up a small group of manticores in a lair. Even by themselves, the manticores are a threat — but they don't exist in a vacuum. Close to the manticore lair is a small wooded area that serves as home to several flocks of birds. These birds might make a tasty snack for manticores once in a while, but the manticores are intelligent enough to realize that killing away the birds is not in their best interest. When the birds become silent or take to the air as a group, it doesn't take a genius to figure out that they were disturbed by the approach of someone or something. The birds are a simple, but effective, sort of early warning device.

Now we'll go one step farther and add a wolf pack that lives nearby. The wolves may claim some of the food that the manticores could get otherwise, but they also make a good warning device as well as being able to attack in their own right. A group of very cunning manticores might actually aid the wolves (and help keep them in the area) by bringing them food when times are lean, or by coming to their aid during a melee. And the wolves might well return the favor — imagine how a party might act in the middle of a "simple" battle with manticores when a pack of wolves suddenly bounds into the picture.

The general idea here is that combinations of animals or monsters present a more challenging obstacle to player characters than if those adversaries are encountered in separate groups, and this kind of game is more enjoyable than one in which characters simply run a gauntlet of one monster type after another.

MORE EQUITABLE EXPERIENCE POINTS

A troll has 6 + 6 HD and is worth 525 experience points plus 8 xp per hit point. Thus, a weakling with 12 hit points has an xp value of 621, while a "supertroll" with the maximum of 54 hp has an xp value of 957. What's wrong with that?

Well, look at it this way. The second troll has $4\frac{1}{2}$ times as many hit points as the first but is worth only about $1\frac{1}{2}$ times the experience points. The problem lies in the system, which gives too high a base number of xp compared to the number of xp that are awarded per hit point.

Here's one way to remedy the situation while retaining most of the structure of the existing system. Divide the monster's base xp value in half and then divide that number by the maximum hit points it is possible for such a monster to have. Round the result to the nearest whole number and add that number to the "per hit point" part of the xp award, and then calculate the new total.

Example one is the troll. The base xp value is 525; half of that is 263 (rounding up on any fraction of .5 or greater). Divide 263 by 54 (the maximum hit points possible) and round the result to 5. Add that to the value of 8 xp/hp to get 13. Now the experience-point formula for a troll is 263 + 13/hp. A troll with 12 hp becomes worth 419 xp; a troll with 54 hp becomes worth 965 xp; and a troll with 33 hit points (the average) is worth 692 xp. In the official system, the figures would be 621, 957, and 789 respectively. The revised system awards slightly more xp for the toughest possible troll, but gives a much smaller award for those that are less formidable.

For example two we'll use the giant squid, a 12 HD monster with a "book value" of 2000 xp + 16/hp. Half of 2000 is 1000; dividing 1000 by 96 yields a result of 10, so the new formula is 1000 xp + 26/hp. Now compare the values produced by each system:

HIU		
points	Book value	New system
12 (minimum)	2000 + 16x12 =	1000 + 26x12 =
	2192	1312
96 (maximum)	2000 + 16x96 =	1000 + 26x96 =
	3536	3496
54 (average)	2000 + 16x54 =	1000 + 26x54 =
	2864	2404

As with the troll, the new award for a maximum-hp squid is comparable to the book value (this time it's slightly less instead of slightly more), and again the awards for monsters of lesser strength are substantially reduced.

This system works well for virtually any type of monster, and helps to insure that player characters don't receive undue credit for killing monsters that are relatively easy to dispose of. At the same time, it doesn't inflate the value of monsters at the high end of the hit-point scale, which helps keep character advancement under control -your control.



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The role of nature

Systems for bringing environment into play

by Bruce Humphrey



Though falling damage in the AD&D® game has been thoroughly covered (DRAGON® issues #88, 90, et. al.), there remains the problem of dealing with other natural hazards and everyday events. What are their effects in AD&D game terms? How can a DM develop the effects of hot and cold weather, or unusual occurrences such as earthquakes and storms? The effects of natural events such as these are expressed in AD&D gaming only in terms of description, not quantification.

When we ask people to role-play, we want them to have their characters treat the game as if it were reality. Well, reality does not consist only of fighting and spell-casting, or of lone, unconnected adventures. When weather and other effects that pervade our lives are ignored, it becomes difficult to treat the campaign realistically. Description alone cannot force players to react naturally when their characters encounter freezing cold, sweltering heat, or unusual events.

In "Weather in the World of Greyhawk" (originally printed in DRAGON issue #68, later included in the revised WORLD OF GREYHAWK[™] Fantasy Game Setting) we found out about generating types of weather and some of their effects, but weather alone is hardly everything a party has to deal with, and the article itself was not comprehensive in describing effects. Knowing exactly what the effects of a particular physical hazard are makes a DM's life much simpler and his world more consistent. No more arguments about damage done or the special effects of cold, heat, unusual weather, terrain features, or natural events such as avalanches. Dealing with extremes in such locales as the Nine Hells or the arctic can be as challenging and stimulating as tangling with dragons. While not strictly realistic, these rules should encourage players to deal in a more true-to-life fashion with temperature extremes and other hazards of adventuring.

It is a good idea to include only those rules and effects that fit into the campaign, since some judges stress play over realism, and others vice versa. What follows is intended to improve DMs' control over events in their games and to provide guidelines for their own ideas. While this article cannot be all-inclusive, and must still rely on description to some extent, the general guidelines here should be sufficient to get DMs to set up reasonable limits on the damaging power of these effects.

Many saving throws described here are made against against a character's ability scores. A save against an ability score (such as dexterity) is made by rolling 3d6 and obtaining a number less than or equal to the ability score. A roll of any number greater than the ability score is a failed saving

The effects of cold

Heat and cold, while they are opposites, have a very similar scope. Not only is their damage dependent upon the degree of heat or cold present, but they might also affect only certain parts of the characters. Each has short-range and long-range effects that have not been fully explored.

"Weather in the World of Greyhawk" describes a variety of cold effects, but it fails to address cold damage. Inflicting such damage on characters is a good way to get them (and their players) to treat cold weather seriously. If the penalties seem harsh, remember that lesser damage ends up being a simple annoyance, while the described effects grab the players' attention and force them to deal with their environment. Face it; a lightly clad character may ignore a descriptive paragraph of cold weather — but start taking away his hit points and he may beg, borrow, or steal to get winter clothes.

The rules for hot and cold situations below apply only to natural conditions, not magical ones. Spells and items already have their effects described elsewhere and are beyond the scope of this article.

While it is possible to develop a damage scheme based on a wind-chill table, it is easier to figure that an unprotected character takes 1 hp of damage per hour in a 40° temperature, plus another 1 hp per hour for every full increment of 10° below that, plus 1 hp per hour for every 10 mph of wind

velocity at a temperature of 40° or below. Thus, a character loses 6 hp per hour if he is in a 20 mph wind and the temperature is 10°. (In this article, the Fahrenheit scale is used for temperature designations.) Cold damage should be kept track of separate from regular damage, since it has special rates and methods for healing. Cold damage heals at a rate of 1 hp for every hour of rest in a temperature of 50° or higher. (Temperatures above 40° and below 50° do not cause cold damage, but neither do they contribute to healing cold damage at the accelerated rate.) Healing potions and spells cure 3 hp of cold damage for every point of normal damage they would normally heal. Cold damage is basically heat loss and physical stress, which is recovered fairly quickly compared to combat damage.

Damage from cold can be lessened by wearing extra clothing. The base temperature (the point at which cold damage begins to accrue) is reduced to 30° for a character wearing a heavy cloak, while normal winter clothing reduces it to 20°. Special winter clothing made by cold-dwelling peoples, or from a cold-dwelling creature such as a polar bear, can reduce the base to 10° or less. Each layer of clothing reduces the base temperature by 5°, but also lowers dexterity and hit probability by one for each layer. While a character in normal clothes loses 4 hp an hour in 30° air with 20-mph winds, when dressed in winter clothing he loses only 2 hp an hour. Being a native of a cold climate also helps; lower the base temperature for all cold-dwelling folk by 10°. Thus, a cold-dwelling native wearing a coat of polar-bear fur only begins losing hit points when the temperature drops to 0°. At -10°, with a 20-mph wind, this character would lose only 4 hp per hour while a normally dressed tropics-dweller would lose 8 hp per hour.

Everyone knows that hard work helps keep you warm in cold weather. Heavy work or combat takes 10° off the base temperature of a character or other being in such an environment.

Once a character has lost at least half of his hit points in cold damage, he should be allowed to make saving throws against his constitution in order to halve further natural cold effects. This shows the body's resistance to cold and lessens the overall deadliness of low temperatures.

Frostbite is another danger in cold weather. If a character's hands, feet, or face are unprotected, every sixth point of cold damage is considered frostbite and is taken instead as normal damage. Hand protection, in the form of thick gloves or wrappings, will reduce effective dexterity by 1 point in cases where use of the hands is important (such as for many of a thief's special abilities), and can also make spellcasting more difficult (half again the normal casting time for spells with somatic components). Cold-weather boots (costing twice the price of normal boots) will protect the feet, but if poorly made or ill-fitting they can slow the wearer's movement by half. A character's face can be protected by a covering mask or scarf. Animal fat spread over the hands or face can take the place of gloves or a mask, but is only effective for one hour per application.

If a character's face, hands, or feet are unprotected for longer than an hour in most cold conditions below 30°, the character suffers certain penalties in addition to the normal hit-point loss to frostbite. Coldnumbed hands force a character to fight at -2 to hit and have a 1 in 6 chance per round of dropping any item held. Spells having somatic components or requiring the handling of materials require twice the normal time to complete with stiff and deadened fingers, and there is a 50% chance that the spell will be miscast and wasted in any event. Frosted feet lower the character's dexterity by 2 points in situations requiring quick movement, such as combat, and reduce his movement rate by 3". An hour of warming is required to return cold-damaged extremities to normal.

When normal damage plus cold damage cause a character to be reduced to zero hit points, that character is overcome with fatigue and falls unconscious. If the character is thereafter reduced to -10 hp, due to cold or combat, he dies of hypothermia – freezing to death.

Other effects typical of cold, snowy climates can be avoided by characters who take proper precautions. Snowblindness on a sunny day can be prevented if a visor (such as most great helms have) is placed over the eyes, but this increases the character's chance of being surprised by 1 chance in 6. Once snowblind, a character cannot recover until he is out of the sun, and will then require 1-4 turns to return to normal. Liquids freeze at a rate of one pint per hour for each 10° below freezing (assume that a pint of oil will freeze at 0°), but placing vials close to the body prevents this. Wearing boots with high-traction soles allows a character to move and fight normally on ice. Anyone not wearing such boots must save vs. dexterity once per turn while moving or else slip and fall. In addition, such a character has a -3 "to hit" penalty, and must save vs. dexterity or else slip and fall if he misses a blow in combat.

Water can be hazardous to characters in the cold. Immersion in cold water, such as when a character falls into a river, causes 1 hp of cold damage each melee round until the character is rescued and placed in a warm, sheltered area. Characters in freezing water also lose 1 point from their strength and dexterity scores each round they are immersed, until either category is reduced to zero (at which time the character dies). Note also the dangers of drowning (described in DRAGON issue #107, in the mariner NPC class).

Cold effects can be halted and offset in several ways. Shelter, which requires a wall at least 5' high and completely surrounding the group, can eliminate wind chill effects. It takes about four character-hours to build a 5'-high wall around a 10'-diameter area. A small fire in the open air can warm two people standing within 3' of it, and a large fire (such as a bonfire) can warm anyone standing within a 5' radius. A small fire warms the interior of a 10' diameter shelter. For simplicity, eliminate temperature effects in warmed areas. Wind chill still affects the characters around a fire in the open. All cold effects are suspended for as long as conditions last by a fire inside a shelter.

Magic can be used to aid survival. Various wall spells can create shelters, and fire spells can warm characters. Treat a flametongue sword as a small tire. A fire elemental counts as a large fire, but it may refuse to appear on or move over snow or ice. A wall of flame serves as both warmth and a shelter, but it creates a pond of water which soon turns to ice. A Chariot of Sustarre keeps everyone in it warm. Adapting to the cold, such as polymorphing into a colddwelling creature or using a cube of frost resistance, is very effective. Characters can always avoid the cold by going ethereal or hibernating (feign death, statue, etc.). Of course, instead of talking about the weather, they can do something about it with such spells as control winds and control weather.

Freezing rain is, if anything, worse than all but the lowest of temperatures. For every hour in freezing rain, characters take normal cold damage plus 1d4 hp, and frostbite damage on every fourth hit point.

Roll for wandering monsters in frozen wastes as if the party were in desert terrain (see *DMG*, p. 47). Many native creatures have a good chance to surprise (1-3 on d6) due to their white fur. Some of the more intelligent creatures also hide in snow drifts or in hollows, making them even more difficult to spot. Unless it is snowing and windy, an adventuring group on the move will leave tracks that last for days.

In extremes of cold, food is preserved for virtually any length of time. Every week, perishables (meat and fruits) have a 20% chance of going bad in 40° temperatures, -5% for every 10° below that.

While fire-based attacks have normal effects, non-flaming heat-based attacks (heat metal, etc.) lose one from each of their normal dice of damage in temperatures below 0°. In extreme cold, such as on certain planes and caused by certain spells (control temperature, etc.), when temperatures (not including wind chill) fall below -60°, all heat-based attacks do half normal damage. In these circumstances, a successful save against the attack negates all damage. Fire-dwelling creatures in cold regions such as these are extremely uncomfortable and twice as difficult to control. Even when control is usually absolute, such creatures have a 25% chance to disobey and attempt to flee.

Hotter and hotter

Now we warm up again, but the characters are not necessarily going to feel any better about it. Not only does heat bring on heatstroke and hallucinations, but discomfort and burns are also factors that often amount to more than simple annoyances.

Temperature is not the only determinant of heat effects. When the temperature is higher than 75°, roll percentile dice to determine the relative humidity. Half of this percentage is added to the temperature to determine the base "perceived temperature." The discussion of temperature effects below is based on this perceived temperature. Adjust relative humidity upward in wet, foggy areas like marshes and swamps, and adjust it downward in places like deserts. Perceived temperature can differ from one individual to another, as described below, depending on other factors such as armor, encumbrance, and general physical condition

For every 10° above 100° of perceived temperature, subtract 1" from a character's movement. For every 20° above 100°, apply a -1 penalty to hit probability in combat. Environmental temperatures above 160° would not occur naturally except in volcanic areas or enclosed chambers. These penalties can be just as useful in the heat of other planes. Reactions to characters by NPCs and creatures that are not natives of hot-weather climates are figured at -5% for every 10° over 100° . This simulates the fatigue and discomfort caused by hot weather. Use the cold-weather control figures for attempts to control cold-dwelling natives in hot weather.

Stress, heavy clothing, and encumbrance also affect characters in the heat. Heavy work or combat adds 10° to the perceived temperature of all characters engaged in such activity. Thus, while the actual temperature remains the same, the perceived temperatures of individual characters change depending on their clothing and work. For every step of armor class (counting actual body armor, not magical bonuses, protection spells, shields, etc.) better than AC 10, treat the perceived temperature as 50 higher for that character. For every 500 gp carried in addition to armor, treat the temperature as 10° higher for the carrying character. Thus, a character wearing chainmail (AC 5) and carrying the equivalent of 1000 gp encumbrance in 90° heat has a perceived temperature of 135°.

Heat does not affect heat-dwelling creatures and characters unless it is warmer than is normal for that being's homeland. Creatures not affected by tire or heat spells are not affected by natural heat. Likewise, tropics-dwellers are inured to these effects. Characters from hot climes raise their heat tolerance threshold to 120°, instead of 100°.

Like continued cold, continued heat can be fatal to characters. Any character with a personal perceived temperature of higher than 140° for more than three consecutive turns must save each turn thereafter against his constitution, for as long as the condition persists. Failing the save lowers his effective constitution by 3 points, while a successful save lowers it by only 1 point. Salt intake adds +3 to this save, slowing the effects of heat. If reduced to a constitution score of 3, a character acts as though under the influence of a *confusion* spell. At 0 constitution, the character falls unconscious; if not treated by a cleric and cooled to a perceived temperature of 100° or less (or protected from heat by magical means), the character will die ten minutes after collapsing.

When in high temperatures, characters have a chance of experiencing several other effects. Each character must save once per hour against his wisdom or see a random hallucination, usually associated with water or some other desired object. Heat reflected off flat surfaces distorts vision, and all missile attacks made while contending with such shimmering surfaces are at -2 to hit. Light-colored surfaces, such as sand, reflect sunlight to such an extent that characters may suffer the same effects as being snowblinded.

Characters may cool themselves by several conventional methods without resorting to spells. By wearing only light clothes, while maintaining a cloth shield against the sun, a character can lower his perceived temperature by 10°. A reduction of 5° occurs for each pint of water poured over the character, to a maximum reduction of 20°. Characters must drink at least one pint of water per hour for every 20° over 100°, or else an extra constitution save (in addition to the normal one above) is required each hour, with similar loss of 1 or 3 constitution points.

Certain magical effects can lower temperatures. Ice created by any cold-based spell or item (including the proximity of a frostband sword) cools anyone within 1' by 5°, with distance and cooling increasing by that amount per cubic foot of ice, to a maximum of half the actual temperature in a 10' radius. Ten cubic feet of ice at 120° cools all characters within 10' by 50°. However, ice melts at a rate of one-tenth of its volume per turn per 20° above freezing (32°). (When the temperature is 132°, half of the ice melts in one turn.) Freezing a solid surface creates an equivalent of one cubic foot of ice for every 6 hp of damage from the spell. Any kind of shade, magical or not, brings temperatures down 10° if it covers at least a 10' by 10' area.

As noted in the section on cold effects, a character may be protected from heat effects by using magic to resist the heat or to become a heat-dwelling creature.

In a desert, lightly dressed characters may suffer from night cold. Because the ground gives up its heat quickly, the temperature can plunge by 20° an hour in such areas, to a minimum of 50°. Normally this is not cold enough to cause problems, but characters acclimated to the heat of the day may find this to be enough to cause basic cold damage (1 hp per hour) unless they take precautions against being chilled.

The chance of perishable food spoiling in the heat is 30% cumulative per day in a temperature of 70°, plus another 10% for every 20° of temperature above 70°. A piece of raw meat has a 30% chance of being ruined if it is left out for one day, and the high temperature for that day was at least 70°. If the temperature rose to 90°, the chance of spoiling after one day would be 40%) and if the meat is left out for two days of 90° temperatures, there is an 80% chance that it will be ruined after that time.

The effects of contact with high heat and fire are primarily manifested as burns. Burns are not like normal damage. They heal more slowly, result in more scarring, and can lead to a variety of diseases. If burn damage affects a character's hands or feet, it can impair the character's functions. Direct contact with a large fire that envelops the victim's entire body can cause shock, and may be fatal even if the victim has hit points remaining after the burn damage is accounted for; a victim must make a system shock roll after being enveloped by a large fire. Failure on this roll means that he becomes unconscious, and he will lose 10% of his remaining hit points each turn thereafter until he receives medical attention (which will halt the hit-point loss) or until he is reduced to 0 hit points (after 10 turns) and dies.

Burn damage, like cold damage, should be kept track of separate from normal damage. Burn damage takes twice as long to heal as normal damage does. For every 20% of the character's hit points lost to burns, decrease his constitution and charisma each by one point. Every day, for as long as burn damage remains, the character must check to see if he has contracted a random acute disease (as in the DMG) by saving against his current constitution score. Each successful save raises his constitution by 1 point, and if his constitution score returns to normal there is no further chance of getting a disease during healing. The first time a character fails to save vs. constitution, he will contract a disease (determined randomly or by DM selection), but subsequent failed saves have no effect, except to extend the character's recovery time. Also, unless the character is magically healed to prevent scarring, he must save vs. poison once per day to recover charisma points. Each missed save vs. poison lowers his charisma score by 1 point permanently, but does not affect his base constitution score.

Characters may encounter a variety of heat-based attacks from natural sources and creatures. The damage resulting from these depends mostly on the volume and relative temperature of the hot matter that strikes the character, as well as the length of time the character is in contact with it. In certain situations, heat attacks should be treated as immediate death. Characters swamped under a wave of lava or plunged into boiling oil will die immediately unless there is a possibility to avoid the material entirely. Even being splashed by such superheated matter can be extremely damaging. While most kinds of heat attacks can be resisted by spells and possessed items, those like lava are at least as hot as dragon breath and

should be treated as such (up to 10-100 hp of damage per round). Some extremely hot natural materials, such as lava, can harm even those creatures normally immune to heat attacks. Only enchanted creatures such as fire-dwelling elementals are resistant to the highest natural heats.

Non-mortal wounds made by hot material include such situations as being splashed by it, running through or over it, or coming within 5' of it. This damage can vary widely, and is affected by the armor and clothing worn. Heavy or thick clothing subtracts one from the saving throw required against the attack. A shield subtracts three from the save, while the AC of the character's body armor (without magical bonuses) is subtracted from ten to find out its value against the attack. Thus, a character in ring mail, with a shield, and wearing a heavy, furred cloak has three plusses from the armor, three from the shield, and one from the cloak, for a total bonus of + 7 given to his required save. A successful save halves all damage.

Basic damage caused by various materials can best be judged by the size of the attack. Attacks that envelop a character, such as a river of lava or a cloud of burning ash, either cause instant death (for materials such as lava and boiling oil) or 6d8 damage (for burning ash or steam). A spray of hot matter causes less damage when it pelts the character, very hot material doing 5d6 damage and other kinds doing 2d8. Very



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hot materials destroy any body part (hands, feet, arms) with which they come in contact, while less-heated matter does 2d4 and makes the extremity unusable for two days Other types of heated materials include redhot iron (very hot), boiling water (hot), items cast into a fire (hot), and burning items (hot) If a character is within 5' of at least ten cubic feet of one of the above forms in an enclosed area, basic damage is 1d4 hp per round

This system should not be used when the hot material is a natural weapon of an attacking creature (breath weapon, immolation, etc.), in which case the creature in question already has attack and damage figures However, this system can be used if the material is a secondary result of a creature's attack, such as boiling mud splashed upon a victim by a fire giant's boulder The system particularly applies to natural phenomena, such as lava and boiling mud pools, steam-filled caverns, and volcanic ash A successful saving throw (when permitted) halves hit-point damage and reduces a death result to the loss of half of all remaining hit points.

Spell-casting in areas of high temperatures can be difficult, if not impossible. Cold-based spells cast in areas hotter than 130° lose one point from each die of damage, and if the temperature is above 200° (on other planes, or in volcanic caverns), they have half normal effect and duration, a successful saving throw negating any effect Cold-dwelling creatures summoned to environments like this are twice as likely to disobey (25% chance to do so, minimum) and may attempt to flee instead.

Weather

This topic includes localized and temporary effects that are dependent on the present temperature and atmospheric conditions of the area. Rain, fog, snow, and storms are types of weather, while temperatures are actually part of climate. Different types of weather can moderate or exacerbate the temperatures that characters experience. They can also have effects on the adventure which go beyond the obvious.

Heavy fog and mists have the obvious effect of halving or even cutting to onequarter the usual range of vision, including infravision (since warm or cool mist can mask the heat of creatures' bodies). These conditions can also soak characters, damage unprotected scrolls and books, make fires hard to start, and make the characters more susceptible to disease (as per the DMG). Such water-laden air can also disrupt electrically based spells (20% chance of negating the spell as it is cast), make invisible creatures easier to hit (-2 instead of -4 to hit for an attacker), subtract one from each die of damage from a fire attack, double the time it takes gases to dissipate, and make some surfaces too slippery to climb (-30% penalty). Many monsters prefer to hunt in fog, benefiting from the reduced vision of



The elven fighter/magic-user, Lady Valshea and her familiar take a break during their passage through Blue Rock Vale.

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their prey and the lessened effectiveness of fire-based attacks; trolls come immediately to mind.

While fog can only exist in still air, exceptionally windy conditions can make flying progressively more difficult (as described in "Weather in the World of Greyhawk"), can inflict damage by blowing down or throwing objects on characters, can halve or quarter the range of vision (or even blind characters) if the wind is carrying sand or dust, and can disrupt spell-casting if material components are blown away (30% chance for sufficiently small or light spell materials to be affected).

Stormy weather combines the effects of wind with poor visibility. Lightning strikes (see below) are possible, but the most dangerous facet of a storm is the advantage it gives to monsters on the prowl. Wind hides any sounds the creature's approach might make, while rain or darkness hide its form. The general confusion caused by a storm contributes to the success of such a hunter's tactics. In stormy conditions, it should be at least twice as likely for the group to have an encounter with a wandering monster, and the chances of surprise (on both sides) should be increased by 50% in stormy conditions.

Terrain

This subject includes those ground areas that are unusual, either naturally or by magical means. Not all terrain crossed by the party consists of grassy fields or cool forests. Medieval forests were boggy and frequently descended into swamps. Characters might even travel to more exotic climes, where rain forests or frozen plains are the norm. In any case, a variety of "terrain encounters," as opposed to "creature encounters," should also be available to the Dungeon Master.

As discussed in "Weather in the World of Greyhawk," quicksand does not necessarily swallow all and sundry. Unencumbered characters wearing scale mail armor or less will sink 1' per round up to their necks, but no further unless they thrash around. (Casting a spell with a somatic component can be considered "thrashing around.") Heavier characters will sink faster (2' per round) and farther, and will drown after 2 rounds of total immersion. However, while they are sinking they may attempt to remove excess armor and equipment. Equipment worn or carried into quicksand and then removed has a 20% chance (per item) to disappear forever into the bog. Items tied or fastened to characters still have a 5% chance (each) to pull off in quicksand.

Muddy surfaces may cause characters to slip and fall. Every time the characters walk through mud (or once per round if they are doing so for an extended time), each must save against his dexterity or fall. Falling in shallow mud (one inch or less) causes no damage. Falling in deeper mud can result in the loss of equipment. Such mud must be at least four inches deep, and any water over it applies to this depth. Any item that cannot float or is flat enough to be swallowed by the depth of mud (such as a sword or dagger) can be lost. The character must save against his dexterity or drop any item in his hands when he falls in such mud. There is a base chance of 40% each turn to find any object, plus 10% for each searcher, but subtracting 20% for small objects (6 inches or less in length) or deep mud (1 foot or more). A roll of less than 10% at any time during this search indicates failure; the item is forever lost unless located or recovered by magic.

Heavy undergrowth in wooded areas can cut the characters' range of vision to half or less. Such undergrowth can trip the unwary (save against dexterity once per turn of movement or round of combat). It also slows movement by half or more, and can cause 1 hp damage per turn to any characters not wearing at least leather armor. Such heavy undergrowth cannot cover wide areas, instead forming thick hedges or patches. A particularly dense forest can make the ground below as dark as night, at least in the ancient and enchanted forests so common in fantasy. Passing through heavy undergrowth is also a noisy endeavor for either characters or most monsters (except for druids, of course).

Mountains offer some of the most challenging terrain for the party. Of course, there are chances to fall from mountain paths, but this does not necessarily mean that the fall would involve great heights. Mountainous regions are typically craggy and broken, so that a fall from a mountain path might actually mean a drop of only 20'-30'. A convenient way to decide the distance is to roll 1d6 and multiply by 10'. On a 5 or 6, roll a second d6 and add that distance in 10' increments, rolling another d6 for every 5 or 6 thrown. Such falls do not have to be vertical, but damage done is assumed to include rolling down slopes.

Mountain-climbing and flying adventures also present another hazard: thin air. Lack of oxygen affects a character the same way as a confusion spell, halves all movement, and subtracts two from hit probability. These effects will begin within a number of rounds equal to a character's constitution, and will last for an equal number of rounds (at which point the character falls unconscious and is in danger of dying) or until the characters return to a lower elevation where the air is breathable again.

In addition to other problems, underwater adventures can also spoil food and destroy valuable items (such as scrolls, maps, potions, powders, and spell materials). Food such as dried meat swells in water, doubling or tripling in size, and becomes inedible. Leather armor and equipment stiffens after immersion in water unless tended to within two hours.

Events

Other natural effects are not part of general weather or terrain effects. These

can be most aptly called events, and include volcanoes, tornadoes, falling trees, avalanches, mud slides, grass fires, lightning strikes, and any other localized dangers which might happen spontaneously or unexpectedly. These are unusual occurrences and should appear only occasionally.

Volcanoes are unusual, but can be an interesting event that may have a connection to some magic being cast in the area. They can spring up unexpectedly, creating the typical cone-shaped formation, or the effects may issue from active or inactive cones. The following effects are typical of volcanoes, but some may be greater or less, depending on the site. The initial result of a volcanic eruption is an earthquake, handled like the cleric spell, within a half-mile radius. The vibrations can be felt up to two miles away. An explosive eruption causes 6d10 damage to all creatures within 200 yards of its center. Up to 10' of ash from such an eruption can settle over areas as far away as ten miles. A lava eruption can spray molten rock over a 100' radius, doing 10d10 damage to anyone inside that range. Lava flows measure up to 100' across and 20' high and can move up to 12" a turn, losing 1" of speed for every quarter mile traveled. The heat from a lava flow or burning ash can set vegetation (or even creatures) afire within range of the effects.

Tornadoes are cone-shaped whirlwinds similar to, but larger than, those created by air elementals. Within a half-mile radius of



the tornado itself, wind speeds range from 40 to 60 mph. These high winds batter flying creatures and tumble light objects around, blowing spell materials and scrolls from hands, extinguishing torches and such smaller fires, toppling trees, and creating a roaring noise which cloaks all other sounds in the area. The tornado itself does 2d20 damage to any creature in the open and 3d8 structural damage to all buildings. Any creatures attempting to move across open ground, and any vehicle or hollow solid objects not lashed to the ground, are thrown 10'-100' and take falling damage as if falling from that height. An air elemental can negate a tornado, but in so doing it is itself dispelled.

Floods and fast-moving streams are not normally dangerous to characters. An attempt to walk or swim through shallow flood waters is successful if a save against the character's strength is made, with one roll required for every 30' traveled. Failing this save results in the character being swept downstream 10'-100'. Drowning may come into play unless a second strength save is made. Success on this second roll indicates that the character may resume moving normally in the flood, but downstream from his old location.

A flash flood can be very dangerous to characters, who must save against falling (as above) once for every 10' of travel. If caught in the initial torrent, characters are automatically swept downstream and must make two successful rolls against strength to keep from drowning. Flash floods are preceded by a sound like rolling thunder.

A falling tree does damage depending on its size. For every 10' of its height, a tree does 1d6 hp of damage to something it hits when it falls. The toppling of a tree is a noisy event. The cracking of timber beforehand gives characters in the path of the falling tree a chance to save against dexterity to avoid being hit. Those who do not save must take the requisite damage and must also save vs. paralyzation or be pinned beneath the tree. A character trying to move a tree larger than 30' long must make a bend bars/lift gates roll to succeed. Smaller trees are automatically moved in one round. Branches of fair size falling from a tree do 1d4 to 1d10 damage (half that if a dexterity save is successful).

Avalanches, rockslides, and mudslides can occur in almost any kind of mountainous terrain. All of these events require some trigger to set them off. Snow can become an avalanche due to a loud, sharp noise, an explosive spell, or stress on the snowy slope from a direct spell attack or impact by a large body. Stones can start a rockslide if damaged by a spell or other large object. An earthen. slope can become a mudslide after a heavy rain or casting of a waterbased spell. A mudslide can also occur when a large mass of stone is changed using a rock to mud spell. Each type of slide does direct damage and can bury characters and items.

Avalanches are the largest of slides, at-

tacking characters over a front one half-mile across and as long as the height of the hill or mountain it is on. Rockslides are the most damaging, but are seldom very large, while mudslides are only slightly less dangerous. A snow and ice slide does 2d6 damage and buries characters who do not save against dexterity. Such characters must save against strength (one try only) in order to escape. A victim can be dug out by companions who were not buried, but it will take from 1-8 rounds for a single searcher to locate and free a victim. (Additional searchers beyond the first will reduce the time required accordingly; two characters can do two rounds' worth of searching and digging in one round of elapsed time.) If a victim is not located and freed in 4 rounds or less, he will have suffocated by the time searchers get to him, unless (10% chance) an air pocket was formed around him when the avalanche came down. Any buildings in the path of an avalanche will suffer 1-10 points of structural damage.

Rockslides do 5d8 damage and bury characters who do not save against dexterity. If a buried victim has at least 10 hit points left after taking damage from the rockslide, he can free himself in 1 or 2 rounds by making a bend bars/lift gates roll (two tries allowed). If he cannot free himself, he will lose 1 hp per round from shock and trauma and will die unless rescued by others within a number of rounds equal to his remaining hit points. Buildings in the path of a rockslide will take 3-30 points of structural damage, and a rockslide will also kick up thick dust (see below).

Mud does 1d6 damage to living beings (and 2d6 structural points damage to buildings), but any buried character must free himself in one round (bend bars/lift gates roll) or drown.

Any item held when a slide reaches a character is torn from his grasp and lost on a roll of 1-3 on a d6. Such items are destroyed on a roll of one if a rockslide is involved. Structures in the path of a slide also slide down the slope on which they rest unless they were seated on rock. Any character caught in a slide is swept 10'-60' downslope.

Fires are a common danger in dry forests and grassy plains. Each type (forest fire and grass fire) does damage as long as characters are in the burning area, but after burning for a time, each type tends to exhaust its fuel. Grass fires do 2d4 damage each round, but after burning for ten minutes, such areas turn into bare earth. Forest fires do 2d6 a turn and may burn for up to an entire day in an area before burning out. While burning, trees in such fires may topple on any characters nearby. Note that all areas adjacent to those burning - especially those downwind - often catch fire as well. On a windless day, the center of a grass fire may be burned out while the outer areas continue to burn. A bare strip of ground ringing a fire (at least 100' wide) can contain a fire except on the windiest of days. Clothing may catch fire, as may flammable

items such as scrolls, oil, and wooden weapons. Smoke is the most dangerous byproduct of fires (see below).

Lightning can affect party members especially metal-armored fighters, who are very efficient lightning rods. Anyone in a high or exposed location in an electrical storm may be attacked by nature. Such natural lightning bolts do between 3d6 and 6d6 damage, depending on the size of the strike. Characters may make a saving throw against death magic in order to halve the damage. Lightning and other similar strong electrical attacks have several side effects. If a strike does at least 50% damage to the character, an electrical attack causes the loss of one constitution point. This may be regained by the application of a restoration or heal spell. Subject to a save vs. paralyzation, the character is also stunned for 1d4 rounds and suffers effects similar to the magic-user's forget spell. Half of the damage from a lightning bolt is actually burn damage and may be treated as suggested in the heat section, above.

The easiest way to handle an earthquake is to refer to the cleric spell of the same name, increasing the area of effect enormously to encompass hundreds of square miles. The described effects are those at the epicenter of the quake, while areas further away suffer progressively weaker effects (fewer points lost, etc.).

Tidal waves have some obvious effects that can be expressed in game terms. A wave that crashes into beachfronts and moves inland does 2d6 points of damage to characters (hit points) and buildings (structural points) for every 10' of the wave's height. Creatures and objects caught in the deluge may be washed inland 10^{-60} for every 10' of wave height, then possibly dragged back out to sea (10% chance per item). For every 10' of elevation of the ground over which it travels or every 100 yards it moves inland, the wave loses 10' of effective height and damage capability. Anyone out to sea, either in a boat or underwater, can tell when such a wave has passed but takes no damage from it.

Falling walls, ceilings, and other collapsing structures are almost impossible to avoid. These situations merit no saving roles unless the character is close enough to the edge of the area of effect to avoid the collapse completely or is standing in a doorway (doorways typically remain stable when ceilings or walls collapse). Structures do 1d4 damage for every point of structural damage which they could absorb, plus 1d4 for every 10' of height or 1' of thickness of the wall. Saving throws to avoid these effects are based on dexterity.

Dust and smoke are normally annoyances rather than deadly conditions. But, at the wrong time and place, they can be quite dangerous. Dust is carried into the air by various events and weather conditions, but opening an ancient tomb or entering dry, unused areas of a dungeon can also raise clouds of dust. Dust can cause sneezing (-2 to hit and on saves), coughing (-1 to hit and on saves), or blindness for 1-4 rounds. Of course, the sounds associated with sneezing and coughing can be fatal when sneaking through a dragon's lair. Very heavy concentrations of dust can be fatal by causing characters to choke, although this is extremely unusual even in the worst dust storms.

Smoke can rise from the burning of almost any substance. It causes the same basic reactions as dust, but is more deadly. Smoke more readily causes choking and suffocation. Also, certain materials, such as oil products, create more deadly smoke. Any large natural fire in an enclosed area has a chance of resulting in smoke inhalation (10%), for which a save against death must be made (at + 2). If the source of the fire is an oil product, inhalation chances are doubled and the save is given no bonuses.

In addition to the effects of wind speed on flying, wind can also affect missiles. For every 10 mph of wind, subtract one from medium-range and long-range "to hit" chances by material weapons (not magical attacks). As pointed out in "Weather in the World of Greyhawk," no missile weapon may be used in winds above 60 mph,

Personal effects

In the interest of realism, many DMs go to great lengths to make their campaigns authentic. These measures often far exceed the scope of the DMG. Some of the following effects are useful in combat, where most odd events and weapons are seized upon by desperate characters. While it may not be a good idea to introduce such mundane ailments as allergies on an everyday basis, such afflictions can be useful as minor curses and penalties for poor judgment. Scattering these relatively innocuous effects throughout a campaign is much more desirable than abruptly hitting characters with them, and some of these effects, if used sparingly, can add to the enjoyment of the playing experience.

Rather than playing out the stampeding of herd animals on the PC group, an event which can take a long time to resolve and produces extreme boredom, make one "stampede" attack on each involved character, using the standard herd individual as a base with +2 to the hit probability. Stampeding creatures must be at least 3' tall at the shoulder to do any damage to adult humans. Small creatures (3' up to 5') have a damage base of 1d4, medium creatures (4' up to 6') 1d6, and large creatures (6' and taller) 2d6. For every five creatures in the herd, each victim that is hit by the stampede will take a multiple of this base damage. Thus a herd of fifteen large herd animals (such as elephants) does 6d6 to each victim of a stampede hit. After the attacks on the group are resolved, the herd moves away at full speed until it is out of sight.

At the DM's option, startling someone could improve the chance to surprise him. Presenting a creature with something it does not expect, such as a sudden light or scene; increases the chance to surprise it by 1 in 6

if the startling maneuver is followed up by an attack in the same round or the immediate next round. A light spell cast in a dark dungeon, a torch thrown in an adversary's face, or a well-cast illusion can cause momentary confusion and hesitation. Monsters may expect to be attacked, but they do not always expect confusing or unusual sights to precede an attack.

How long does it take to put on or take off armor? Some players seem to think that armor works like a pair of shoes - untie a couple of straps and it drops off. Their characters whip off armor in record time when necessary, such as when the platemailed fighter falls off the ship and starts to sink like a stone. But things just aren't that easy: It should take an unaided character 4-9 rounds to don leather armor, and half that amount of time to completely remove it. For each additional armor class step, the time required to put it on increases by 2 rounds (and thus, the time needed to remove it increases by 1 round). With the help of another individual, a character can put on or remove armor in half the normal time, but never less than that.

Other environmental factors

During the round in which a *light* spell is activated in a previously darkened area, or in which it goes out after being active, the eyesight of all creatures with normal vision is affected. Anyone not able to use infravision or ultravision is partially blind and

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fights at -3 to hit for that one round. A DM may also rule that the detonation of fire-based spells has a similar effect on infravision.

Every DM has had to deal with the party whose members think they are all thieves. Such groups sneak around, expecting to surprise everything they meet, regardless of their dress and behavior. However, most types of armor are not conducive to quiet movement, and non-thieves have little skill in stealth. To simulate this, each non-thief character who tries to sneak around should have to save once per round against his dexterity, subtracting one from the roll for every AC step less than 10 (excluding magical bonuses). Even leather creaks at times, although thieves normally pad theirs to prevent this, and chain mail and plate mail can be exceptionally loud under dungeon conditions. The surface being walked upon also affects the chance of moving in silence; leaves and undergrowth make everyone pretty noisy (-4 penalty on the save), and hard boots on a hard surface make stealth difficult (-2). Jewelry and like items tend to rustle and clank (-1). If a character spends a full turn in preparation, wrapping cloth around loose items and armor, he receives a +2 bonus to his save needed to move quietly – but the save must still be made once a round. This does not means that the character can move as silently as a thief. He can, however, move as quietly as possible, possibly gaining a minor bonus to his chance to surprise.

It is useful to enforce proper character reactions on occasion. Since the players are participating in a "role-playing" game, it is not unreasonable to expect them to react realistically now and then. Yet most players greet each new creature with bare-bladed glee. Even the DM's most horrid conjuration is subjected to a veritable buzzsaw of characters' weapons and spells; the adventurers hesitate before attacking the monster only long enough to decide the best tactics for beating its brains out. While it is not a good idea to force realistic reactions in every encounter, particularly surprising, horrific, or awesome creatures and scenes should inspire more than a simple, "Okay, let's go get 'em!" To return some roleplaying to this aspect of the campaign, a simple threat comes in handy: Treat the encounter with some realism or suffer the consequences. In this case, "consequences" are the equivalent of a *fear* spell. If the characters do not exhibit some of the fear and emotion which the encounter deserves, simply invoke a *fear* spell, which often has far greater effects than any simple roleplayed fear might have. Soon characters are reacting more realistically, even if it is just to avoid the alternative.

When a party fights a particularly noisome opponent (undead come most readily to mind here) or fight in such vile locations as sewers or refuse-strewn lairs, they should have increased chances of getting infected wounds. The base chance for this should be 100%, minus 5% for every constitution point a character possesses. At the end of each day after contracting the infection, the character must save vs. poison or progress to the next stage of infection. The first day of an infection results in the character losing 1 hp every 6 hours. The second day, he becomes confused and feverish, with continued hit-point losses. The third day, the character hallucinates and generally becomes immobile. If the save on the third day is missed, the character dies from the infection. Any healing spell removes an infection during the first two days, but on the third day only cure disease stops the infection. Anytime during the first day a piece of heated metal may be placed on the infected wound to cauterize it. This causes 1d6 damage, but stops the infection.

Simple allergies are useful as minor curses and to make characters more individualistic, but when used too often can be annoying to gamers. Usually, some common substance (dust, pollen, leather, or certain types of animals) must be present to cause the reaction, which includes sneezing (see dust, above) or itching (-3 to hit and on saving throws, and 20% chance to disrupt spell-casting). Extreme allergies (such as to bee stings) can be fatal. For these allergies, which are very unusual and should be treated as major curses, the character must save vs. poison or die. Even a successful roll means he is incapacitated for 2d6 turns.

Many of the creature lairs which characters encounter reek with foul odors, and many creatures themselves (particularly undead) fail any cleanliness test one could name. Nausea is as fearsome a weapon as any other, as any ghast could affirm. Including a few disgusting odors in the encounters adds realism and some unexpected danger. Each character should save vs. poison in order to avoid nausea, which affects characters for 1d4 rounds with a -2 "to hit" penalty. Bonuses and penalties to saving throws may be called for in some situations.

Food poisoning is another occurrence that is useful in keeping players on their toes. As described above, food will spoil within a certain period of time in some climates. For the first two days after it has spoiled, a character must save against his intelligence or not notice the spoilage. Thereafter, the smell makes the situation obvious. Two hours after eating spoiled food, the character must save vs. poison or be incapacitated for 1d4 hours thereafter. Eating large amounts of certain types of spoiled food can lead to death, but this is unusual since medieval people would be eating halfspoiled food constantly and would tend to build up a tolerance to the toxins.

Darkness in the open is not the same as darkness underground. In the dungeon or a building, no light can penetrate, resulting in the usual -4 to hit (and no missile combat) due to blindness. Outside, however, there is almost always some light, even in the worst weather. On a bright, moonlit night, the attack penalty due to darkness should be no more than -1, or -2 for missile combat. On overcast or stormy nights, penalties can drop to -3 to hit and missile combat might be impossible. Except on very bright moonlit nights, most flying creatures avoid aerial movement after sundown. Darkness makes flying hazardous to all but the most keen-sighted of flyers, from the difficulty of detecting hazards, other creatures, and even the ground when landing.

Natural insects can cause problems for characters. Virtually none have a deadly poison, but many can cause painful bites and itching. A swarm of such insects can affect even fully armored characters, subtracting 2 from their hit probability and saving throws at their worst for 1d4 hours (or unless healed), due to itching from the bites. Some characters might have a deadly allergic reaction to these pests (see allergies, above), but otherwise there is little chance of meeting deadly natural insects.

While fires in an enclosed area do create smoke, as detailed above, they can also create deadly gases. This is especially true when burning oil products, such as those which light lamps. Any group which sets up a fire in an enclosed area should have each guard save against his intelligence to notice the situation, or else each member of the group should be required to save vs. poison after spending a reasonable length of time in such circumstances. Making the save means no effect (although other saves may be called for later); failure on the save means that the character is in danger of suffocation. A victim will fall unconscious and then die in 1d4 turns thereafter unless the poisonous gas is dissipated or the victim is removed from its source.

Some poisonous gases, such as methane, occur naturally. These are usually found in dungeons, caves, or swamps. Like gases caused by burning, these gases can smother or poison characters, and some are explosive in sufficient quantities. In the latter case, an ordinary torch burns more brightly and in a different color if a flammable gas is present. If a fire-based spell is cast in an area that contains a critical level of flammable gas, a 3-dice *fireball* encompasses the entire area of the gas.

Editor's note

It's been said before (in the first full paragraph on the second page of this article), but we're going to say it again: The rule systems presented here are not direct orders, they are not meant to cover every situation that could arise in an adventure, and they are not an absolutely accurate reflection of reality

For your own sake, don't get hung up on how to handle something that isn't accounted for here. Instead of writing us a letter to ask if a thief can pick a lock with frostbitten fingers and waiting a few weeks for us to tell you to do what you want, just do what you want in the first place. Even as lengthy and detailed as this article is, it still represents only a starting point. Where you take it from here is up to you.



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The ecology of the **PERNICON**

by John Nephew

(The following are excerpts from the diaries of the Emir of Yandark, later High Sultan of Kiralsh, Jesouhd Ye'esif.)

During my recent visit to the eminent Colonel Endrivan of Olcoran, once an adventuring companion of mine and always a friend, he expressed some interest in a creature he had heard lived in the Iriahb Desert of my homeland. This creature, the insect known as the pernicon, captured his interest for the water-divining powers which have made it known. We discussed the topic for some time, since I have had some experience with the creature in my desert travels. It seems to me that little is commonly known about the pernicon, and many "facts" about it have been distorted. Since visiting with the colonel, I have taken some interest in the particulars of the creature and learned what new things I could of it. I record here that which I have learned, and hope the knowledge will be of use to the desert traveler and naturalist, and of interest to others.

The pernicon is in basic form similar to a locust, or grasshopper, of about two inches in length. There are several points that distinguish it from its smaller cousins. Coloration is vastly different, with red, yellow, ochre, and blue being common, as well as some rarer shades among those, such as orange-yellow or greenish-yellow. Another difference I have seen is that the pernicon lacks wings – it is a crawler and jumper.¹

The pernicon lives in the outer reaches of deserts, probably so that it has a supply of vegetable matter available for consumption when there is a lack of animal life²; again, unlike the grasshoppers and locusts, it is truly an omnivore. The creature feeds on animals by jumping on them and clenching exposed flesh (or soft body parts, in the case of some creatures) with pincers at the rear of its abdomen. Through this, the insect drains the fluids of the victim - and often its life.³

The pincers continue to siphon out one's endurance even if the insect is slain, and removal of the pincers is a delicate and painful task.⁴

Though they are small and weak, the trouble in killing pernicons lies in *hitting* them, because of their size and swift hopping. Always beware those pincers; a pernicon dodging your blow may at the same time be launching its own attack. Of course, a pernicon that is attached to you makes a much easier target.⁵

One seeking these creatures should hope to find a small foraging group of pernicons, rather than the thousands that infest a lair. Though one or two cause little trouble to anyone with fighting experience, a large group poses a threat even to the most able of warriors.⁶

The lairs of the creature are found near the desert's edge⁷, as mentioned before, near their plant and animal food supplies. A lair almost resembles a town, being made of many mounds resembling large anthills raised from the sand.

I caution the reader to remember that they are *hills*, with burrow entrances. Make sure that they are just that; near many pernicon "towns" are the pits of ant lions, which are giant insects of greater power and aggressiveness. Those ant lions living in such places often feed on pernicons which leave the lair to forage, though a little variety in the ant lion's diet is welcomed. On occasion, the ant lions become the prey rather than the predator. Once I saw a huge swarm of pernicons attacking one, covering its body and draining its life. I would guess that it had dug unwittingly into one or more of the pernicons' tunnels and was paying the price of annoying the occupants.

This brings me to the mention of their tunnels. The burrows from the mounds go down at least six feet, to where the ground is more firm. It is here that the pernicons rest, breed, and spend much of their time. They dig long tunnels, each usually no more than half an inch high - which is ample space for the insects. I have heard from some men and women of the desert that the pernicons, by their water-detecting powers, tend to dig down where there is a supply of ground water. I would suppose then that in some places there would be tunnels going down a hundred feet or more! The learned sage Elkir Hildar of Ye'nassa told me that they need these humid "wells" to lay their eggs in, lest the eggs shrivel up and the young die before birth.

After the pernicons have eaten all the food near their "town," they move on to another location, abandoning their old lair to seek a new place with more food. The entire colony moves at once – a great multicolored blanket moving across the land: crawling, jumping, devouring everything in their path until they find a suitable site for a new tunnel complex.⁹ Hundreds die on the journey, but hundreds more live. They are the hated enemies of farmers and those who live off the fertile land. As they eat plants around their new "town" in great quantities, they enlarge the desert.

But just as the farmers loathe them, the nomads and travelers of the desert treasure them almost beyond gold. The antennae of the creature have a curious water-detecting power. When within two score yards of great amounts of water¹⁰, the antennae vibrate and hum.

The creature's water-divining power has



been cause for much speculation and theorizing among sages. It does not seem to be magical in a strict sense; many bards consider a sunset magical, and augurs see magic power in the flight of birds and the entrails of beasts. This is, however, no place to argue the difference between "magical" and "natural." No magical power is required in the preservation process. Through the length of the antenna from outer tip to anchor is a clear, oily liquid. In the presence of the elements of earth and air it remains still, but water causes the fluid to become agitated, vibrating the antenna. Close contact with fire renders the liquid a brittle solid, which has no divinatory powers. The sage Carthin of Ethrenor speaks of each element having its own radiation (similar to the energy of the Positive and Negative material planes), and suggests that the antenna's content is sensitive to the radiations of the water element.11

Among many nomadic tribes, the pernicon antenna is a sacred religious object offered by some shamans to their deities for water.¹² To some desert cultures, the insect itself is sacred and is the symbol of deities. The ancestors of one nomadic tribe I know of sacrificed criminals to the pernicon swarms. It is ironic that while some hold the pernicon sacred for religious reasons, among other groups (most notably the royalty and very wealthy classes of my land) the pernicon is sacred for culinary reasons. There are several ways to prepare the insect, though always the antennae and pincers are removed. In my favorite recipe, the pernicons are fried in olive oil and served with salt and camel butter. Cooked properly, they are light, crispy and delicious; furthermore, they are a status symbol indicating great wealth. Attempts have been made to domesticate the creatures, but none vet successfully.

Despite being a culinary delicacy, even more valued are the creatures' antennae, as mentioned before. It is not easy to find them on the market. Near the eastern edge of the Iriahb Desert, in the city of Grindar, they are sold for considerable sums of money, but they are often improperly preserved (disintegrating in the buyer's hands moments after being purchased) or were not correctly removed from the creature (and thus are completely useless). In all likelihood, you will have to find and preserve the antennae yourself to ensure their quality.

The first problem, once you have found and slain the pernicon, is the careful removal of the antenna. The antennae have a bulbous portion not far below the outside of the skull. This anchors the antenna, but still allows it movement. There are tiny muscles in the anchoring chamber. With them, the antennae may be moved together or in different ways. This is helpful in finding the direction of water. One antenna is aimed one direction, and the other the opposite. The creature can detect the most minute difference in the frequency of vibration, and the antenna vibrating faster is closer to the water. Humans using an antenna have to move around, with the antenna indicating the direction of the source.

Beneath the "anchors," the very bases of the antennae are short, thin projections with rounded tips. Each tip touches a sensitive, rubbery tissue atop the creature's brain. This tissue detects the vibrations of the antennae (if any) and the direction it is aimed, and sends them to the brain, which can interpret the signals.

To correctly remove the antenna, the skull must be pulled apart to either side of the anchor, and the antenna cut free from the muscle tissue and removed. Most professionals use a special tool, a spring-tweezers, to remove the antenna; if these are not available, the next best things are some of the more delicate instruments found in most sets of thieves' tools.¹³

Though small and delicate, an antenna lasts quite a while if you care for it well. If allowed to become damp, it disintegrates. It is by nature dry, and immersion in water causes it to explode harmlessly.

An antenna is also brittle, and crumbles to dust unless handled with utmost care. It is good to have it stored carefully and used only when necessary. The Bilndiah nomads have a simple but effective means of storing their antennae, which I use myself and recommend to all travelers. They use a bone map case, in which is placed a roll of camel hide (with plenty of cushioning fur) around the antenna. It does an excellent job of protection, so that the antenna will usually remain intact even if dropped quite a distance;¹⁴ it also keeps the antenna silent and still when not needed. If the case is watertight, it is even more useful. Some folk, such as some merchants I know, prefer metal or wooden cases, often inlaid and decorated with precious metals and stones.

A last word of advice must go to the traveler: The antenna can only detect water – if there is no water near, the antenna is of no more use than another grain of sand.

Notes

1 — The distance that a pernicon can jump varies greatly. This author suggests a base horizontal range of 10' and a vertical range of 5'. These figures should be adjusted at the DM's discretion, in consideration of such factors as wind speed and direction, and temperature. Pernicons function more sluggishly in lower temperatures, but this is not generally a factor in their desert environment.

2 – Despite his travels and knowledge of the desert, the Emir has made a small mistake. The pernicon's diet does not consist mainly of other animals, as he appears to imply. They are primarily herbivores. Jesouhd Ye'esif is, though, accurate about the creatures' method of attacking. Creatures "eaten" aid the creature by providing much-needed liquids, and some nutrients, but pernicons cannot live on fluids alone.

3 – Note that the pernicon's attack form will not harm certain creatures greatly, if at all, at the DM's discretion. The "immune" group should include all undead, most elementals and para-elementals (including such creatures as the thoqqua, dune stalkers, grues, etc.), some outer-planar creatures, golems, and so on. The DM should remember how the pernicon harms – it sucks out body liquids. If a creature has no body fluids, it won't be harmed, except by the pincer being clamped on or pulled off.

4 — This author considers 1-4 hp damage for the removal of a pincer of $\frac{1}{2}$ inch in length (at most) to be excessive, and recommends only 1 hp damage be taken instead.

5 – A pernicon attached to a victim has AC 10. Note that if an attack is made on such a pernicon and the attack misses, a "to hit" roll against the victim should be required 50% of the time, with no dexterity adjustments applicable. Even if the pernicon is killed, its pincers remain in the victim, as noted in the FIEND FOLIO® Tome, p. 72.

6 — For dealing with combat between pernicons and armored characters, refer to the accompanying article.

7 – An inhabited "town" of pernicons will rarely, if ever, be located more than a mile from the border of the desert.

8 - Female pernicons lay eggs twice a year. Special moisture-holding chambers are made by the pernicons, by gluing grains of sand together with sticky saliva (produced from fluids drained from victims), to hold the hundred or so eggs deposited by each female after mating. Because of the thin, membranous shells of the eggs, they have to be deposited on moist sand lest they shrivel up and die before hatching. This is the reason that the pernicons tunnel down to reach ground water or moisture (which is closer to the surface near the border of the desert), and the major reason that they possess water-detecting antennae. After sand on the chambers' floor is sufficiently dampened and the eggs deposited, the chamber is sealed by saliva-glued sand to contain the moisture. The young hatch within a week or so and eat their own shells (and sometimes their neighbors' shells, or even their neighbors). They then burrow out to join the colony. As the average, only 1-6 of a pernicon's hundred laid eggs will survive to maturity.

9 — There is a 1% chance that an encounter with wandering pernicons will be with a moving colony, in which case the number appearing will be the lair size rather than the normal "wandering" size (*i.e.*, 300-3000 rather than 4-40). Player characters meeting such a group are advised to get as far away as possible, as fast as possible. Pernicons en route to a new lair are particularly aggressive, since they will need animal fluids for the construction of the tunnels and egg chambers of the new lair (see note 6).

10 — The FIEND FOLIO Tome is vague as to what a "large quantity" of water is. This author recommends that any water body of 5,000 gallons or more should be easily detectable. Smaller amounts should be detectable at closer ranges.

11 - This could be compared to the

liquid-crystal display in digital watches. Electricity causes the liquid crystal molecules to align in such a way as to absorb light, becoming visible to the observer. The radiations of water cause the pernicon antenna's oily fluid to behave in the opposite manner — going from a neutral state to chaotic and agitated. Fire causes the reverse, the liquid going to a rigidly structured form. Submersion in water destroys the antenna; the oily substance disperses rapidly, bursting out of and shattering the antenna.

12 – If a pernicon antenna is used by a cleric or druid as an additional material

component for a *create water* spell, the spell will produce 10%-60% more water than it would otherwise. As with other material components, the pernicon antenna will disappear after the spell is cast.

13 — Successful removal is not automatic. The base chance, rolled on a d20, is equal to the dexterity of the character (or the average of two characters) attempting the removal, modified as follows:

If the first time ever tried, -10 (then -9 on the second, -8 on the third, etc.);

If special tools are used, + 2;

If thieves' tools are used by two characters, no adjustment; If thieves' tools are used by one character, -2; and,

If other tools are used, such as hairpins, -2 (two characters) or -4 (one character).

The task requires the total concentration of the individual(s) involved. If work is disturbed before finishing the removal, there is an 80% chance of the antenna being ruined.

14 – Pernicon antennae should have saving throws for resisting damage from falling. Normally 20 is the proper save, but in such a bone case, it should be 10, adjusted upward by 2 for every 10' fallen. A metal case grants a base saving throw of 8.

The pernicon: a new version by John Nephew

While the previous article may be applied to the official pernicon found in the FIEND FOLIO® Tome, hopefully making it easier to integrate into your campaign, several problems remain with the original monster. It is awkward for a DM to handle in combat, particularly if the monster appears in large numbers?; and its hit points, damage, and constitution drain are extremely great and powerful characteristics for a two-inch insect to have.

Herewith is presented the *revised* pernicon. Parts of the following description are taken directly from the FIEND FOLIO Tome (p. 72) and credit for these portions (and, of course, the original idea) goes to the original author of the pernicon, Mary Patterson.

PERNICON

FREQUENCY: Rare NO. APPEARING: 4-40 (in lair or moving colony, 300-3000) ARMOR CLASS: 3 MOVE: 12" (plus jumping) HIT DICE: 1 hit point % IN LAIR: 20% (1% chance of the encounter being with a moving colony) TREASURE TYPE: See below NO. OF ATTACKS: 1 DAMAGE/ATTACK: 1 hit point SPECIAL ATTACKS: Continuous damage SPECIAL DEFENSES: Nil MAGIC RESISTANCE: Standard INTELLIGENCE: Semi-ALIGNMENT: Neutral SIZE: S (2 inches long) PSIONIC ABILITY: Nil Attack/defense modes: Nil/nil LEVEL/X.P. VALUE: I/7 + 1/hp

A brightly colored insect rather like a grasshopper about 2 inches long — red, yellow, ochire, and light blue — the pernicon inhabits the outer regions of deserts. It

is much prized by the nomads of these regions, because the antennae on its head are water-diviners, vibrating and giving off a low hum when within 120' of a large quantity of water.

The pernicon is usually inoffensive, but it attacks in large numbers if disturbed, accidentally or otherwise. It leaps on its victims and grips exposed flesh with the set of pincers at the rear of its abdomen. The pincers themselves do 1 hit point of damage and then begin draining the fluids of the victim at the rate of 1 hp per subsequent round, without requiring further "to hit" rolls. Normal pernicons are capable of draining 5 hp of fluids in that manner (thus being capable of doing 6 hp damage total), at which point they are quite bloated and will drop off the victim to crawl away.

A pernicon attached to a victim has an armor class of 10. However, on an attack against it that misses and is a roll of 4 or more under the number needed to hit it, the victim is hit and receives half-normal weapon damage (rounded down). If the insect is slain while attached, the pincers remain in the victim and continue to drain hit points (fluids) at the rate or 1 point per round. Removing the pincers, which can be done easily in 1 round by the victim or a companion, inflicts an additional 1 hp damage but stops the fluid loss.

Leader pernicons: In each colony of pernicons, there is one extraordinary leader pernicon, whose main functions are deciding when it's time to leave the lair, choosing where to establish a new lair, and breeding. Leader-type pernicons are different from normal sorts as follows: AC 2, 2 hp, 4" length, low intelligence, and the capability to drain up to 10 hp of fluids (at 1 hp/ round). A leader-type pernicon invariably has its own chamber in the lair, and there is a 25% chance that the chamber's walls are of saliva-glued gold dust (value 2-12 gp if melted down). In mass combat (see below), the leader is treated as an individual mon-

ster, never as part of a swarm.

Combat: Since pernicons are small creatures that attack in large numbers, they are difficult to manage in a conventional combat manner. The following suggestions should help.

The main pernicon swarm always divides into small swarms of relatively equal size for each opponent. A swarm may then be in some ways treated as if it was a single creature (similar to the cifal; see the FIEND FOLIO Tome, page 19). Each pernicon has 1 hp, so the collective "creature" has as many hit points as there are pernicons within it. A victim is more likely to attack successfully against such a large number of insects, so the swarm's opponent receives +1 "to hit" for each ten pernicons alive and lighting him when the attack is made.

The number of pernicons that can actually attack depends on the clothing or armor of the opponent, as noted below.

Armor/clothing	Pernicons able to attack
Bare	200
Cloth	100
Leather	50
Studded leather	40
Ring mail	30
Scale mail	20
Chain mail	15
Splint mail	15
Banded mail	15
Elfin chain mail	12
Plate mail	10
Field plate	5
Full plate armor	3

Shields affect armor class (they can bat away insects), but not the number of creatures able to attack.

Combat is carried on in a fairly normal manner. When there are very large numbers of pernicons, it is recommended that the DM take a percentage (20 minus the number required to hit a pernicon, times



five) of the number of pernicons able to attack as the number of successful hits. Each hit does 1 hp damage, and once pernicons are attached, they remain so for up to five more rounds. The number of pernicons attached to a victim reduces the number of pernicons able to make further attacks thus, a person in full plate with three pernicons attached is effectively immune to further attack until the three drop off, though he takes only 3 hp damage per round from them.

Sample combat: Colonel Endrivan (9thlevel fighter, 55 hp, STR 17, *chainmail +2*, shield, *longsword* +1) and his henchman Vandren of Agenelia (2nd-level fighter, 13 hp, STR 14, studded leather, shield, broadsword) have the misfortune of encountering 40 pernicons. The larger swarm divides into two swarms of 20 each.

First round: The Colonel and Vandren gain the initiative and attack. Both receive +2 to hit, since they are each fighting 20 pernicons. Colonel Endrivan needs a 5 and rolls an 18; Vandren needs a 15 and rolls a 14. Colonel Endrivan rolls a 6 for damage, adjusted by +2 for strength and magic, thus killing eight pernicons.

The pernicons attack. Chainmail allows all 12 pernicons remaining in Endrivan's swarm to attack, and they need a 19 to hit. The DM rolls a d20 twelve times, and three hit with rolls of 19 or 20, thus reducing the Colonel to 52 hp. Vandren does not fare so well. The DM does this the easy way; since

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Second round: The pernicons gain the initiative. For a start, the three pernicons attached to Endrivan and the five on Vandren take their toll, leaving 49 and 3 hp to the fighters, respectively. The nine pernicons swarming around Endrivan attack, and one hits. Five more of Vandren's attackers hit and he loses consciousness (at -2 hp) from blood and fluid loss. The ten pernicons attached feast to their capacity, and the ten that aren't attached now move toward Endrivan, to fight him the next round.

Colonel Endrivan fights back, receiving two attacks this round. Since there are only eight in his swarm, he needs a 7 to hit, but he misses twice with a 3 and a 4.

Third round: Once again, the insects gain the initiative. The four pernicons on Endrivan reduce him further to 44 hp. Those leaving the body of Vandren bring the number of attackers to eighteen, and two hit. Endrivan now needs a 6 to hit, and rolls an 8; the damage roll (a 6, plus adjustments) indicates that he has slain another eight pernicons.

Fourth round: Endrivan gains the initiative, and attacks twice; he needs a 6, and rolls 19 and 17, killing all "swarming" pernicons. Those attached do another 6 hp damage, leaving Endrivan at 36 hp.

Fifth round: The Colonel, having some knowledge of pernicons, attacks one of the more recently attached ones and removes it. He also removes the pincer, but is down to 30 hp at the end of the round.

Sixth round: Endrivan removes another pernicon, and the three who attached in the first round of combat fall off, bloated. The Colonel has 25 hp left.

Seventh round: Endrivan removes the last pernicon and pincer, and kills as many of the horrid, crawling beasties as he can find. He emerges from the encounter with 24 hp out of his original 55.

As can be seen, large numbers of pernicons are formidable even to high-level fighters. Of course, a **wand of fire** or **cloudkill** can do much to counteract an unwanted swarm of the pests. . . . **P**

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Cantrips for clerics 0-level magic for deities to dish out

by Arthur Collins

By now, everyone ought to be familiar with cantrips, the 0-level spells cast by apprentice magic-users and illusionists. This article details a similar sort of O-level spell particularly for clerics and druids, called the orison.

These 0-level clerics and druids are sometimes called postulants, thurifers, servers, or inquirers. They are also called *gofers* by some, as their place in the religious hierarchy is such that they are always being told to "go fer this" and "go fer that." (The druidical cult spells it *gopher*, but that is an inside joke.) At any rate, they are apprentices, so to speak, receiving their basic education before taking their initial vows.

While undergoing their basic religious indoctrination, they learn certain standard prayers and responses, the more powerful of which are called orisons. These are minor spells of limited effect. After the postulants go on to enter their callings, these orisons are usually left behind for more powerful spells. However, any cleric or druid may choose to memorize and employ two orisons in place of a 1st-level spell. Each 0-level cleric or druid learns 7-10 of these minor spells during one's time of basic instruction.

In parties that are chronically short of clerical or druidical help, the DM may opt to allow characters of other classes (rangers or paladins) to use these orisons. A PC with a religious education might remember 2-3 of these orisons from one's training. One would still have to pray every morning for them, just as a cleric or druid would, however. This should be done *only* with the DM's permission. Orisons should be assigned randomly to such characters, while a cleric or druid can (in fact, must) pray for specific ones.

Most orisons work for either clerics or druids, though a few are class-specific. Below is a listing of orisons by class, with explanations and descriptions to follow.

Clerical orisons	Druidical orisons
1 Aspiration	Aspiration
2 Benediction	Benediction
3 Candle	Canticle
4 Canticle	Cure Minor Wnds.
5 Ceremony: Oath	Find a Stray
6 Cure Minor Wnds.	Malediction
7 Malediction	Meditation
8 Meditation	Petition
9 Petition	Ripen
10 Warding	Warding

Note: In the information below, certain abbreviations have been used. R = range,

D = duration, AE = area of effect, C = components, CT = casting time, and ST = saving throw.

Aspiration (Invocation)

- R: 0 D: 6 turns
- AE: Caster
- C: V,S
- CT: 1 segment
- ST: None

An aspiration is a quick prayer on the order of, "Give me strength!" or "Don't let me goof up!" In game terms, it permits a nervous player to pre-roll a dice roll. The player-caster rolls a d20 out of the player's own sight for the DM, who records it. At any time during the next game hour, the caster may appeal to have a bad die roll replaced by the hidden roll. The d20 can be applied as a "to hit" roll, a saving throw, or, by multiplying it by live, a percentile dice roll. Upon the caster's request, whatever was rolled in casting the orison is revealed, and becomes the official dice roll. There is no guarantee that the previous roll will be better, but it will be a second chance. The somatic component is the caster's ritual sign.

Benediction (Conjuration/Summoning)

- Reversible R: 1" D: 2 melee rounds AE: 1" x 1" square C: V,S CT: 2 segments
- ST: None

A *benediction* is a minor form of *bless*, raising morale of friendly creatures by +1, and their hit probability by + 1. It will not affect those already engaged in combat. It requires no material component.

Candle (Alteration; clerical only)

- R: Touch
- D: 2 turns
- AE: 1 candle
- C: V,S,M
- CT: 1 segment
- ST: None

When casting this orison, the caster causes the candle held in his hand to light. Throughout the orison's duration, the candle cannot be put out as long as the caster continues to hold it. The candle will be consumed normally, but drafts, *gusts of wind*, and so on cannot extinguish the flame. Drowning or smothering the flame will extinguish it, however.

- Canticle (Alteration) R: 0 D: Special AE: Caster
 - C: V
 - CT: Special
 - ST: None

A *canticle* is a minor form of *sanctuary*, and casting it requires the chanting of portions of the cleric's sacred literature. As long as the chanting continues, opponents must make a saving throw at +2 in order to strike or otherwise attack the caster. The caster cannot engage in any other activity than slow movement (6" rate) during this time. For other effects, see the description of the *sanctuary* spell.

Ceremony: Oath (Conj./Summoning;

- clerical only)
- R: Touch
- D: Special
- AE: 1 person of the caster's religion
- C: V,S,M
- CT: 3 segments
- ST: None

A person taking an *oath* in the presence of a cleric pledges his honor to do some minor task. The cleric proffers his holy symbol for both parties involved in the oath to touch, and ratifies the *oath* with his ritual sign and some formula such as "so be it." The oath stands until the pledge is fulfilled or broken. If broken, the oathtaker (whether the cleric himself or some other person of the cleric's religion) will lose -5% on his loyalty base until satisfactory reparations are made (if ever). Note that a third party of the caster's religion can pledge his honor for the oath of a nonbeliever. In this case, both join in touching the cleric's holy symbol while the orison is cast. The cleric can pledge his own honor for a non-believer, but this is an extremely rare circumstance. The penalty to loyalty base simulates the loss of honor to the oathbreaker.

Cure Minor Wounds (Necromantic)

- R: Touch
- D: Permanent
- AE: Character touched
- C: V,S (plus M for druids)
- CT: 2 segments
- ST: None

A minor *cure*, similar to all other *cure* spells, this orison will heal 1-4 hit points of damage. Note that this spell is not reversible. See the *cure light wounds* description for more information.

Find a Stray (Divination;

druidical only)

- R: 2 miles
- D: Special

AE: 1 domestic animal and the caster C: V,S,M

- CT: 3 segments
- ST: None

This orison enables the caster to locate any missing domestic animal within two miles. The animal could be a cow, sheep, dog, horse, cat, or any other such "normal" beast. The caster stands in a place wellknown to the animal (a barnyard, pasture, etc.), spits on the ground, makes a sign, and calls the animal by name (Rover, Buttercup, Porky, Old Tom, etc.). If the animal is within two miles of the caster, the caster's tongue will tingle slightly, and give him direction by the manner of its tingling as to where and about how far off the animal is. The effects will last until the animal is found, the caster gives up, or the animal moves beyond a two-mile distance from the caster.

Malediction (Conjuration/Summoning) R: 1"

- D: 2 melee rounds
- AE: 1" x 1" square
- C: V,S
- CT: 2 segments
- ST: None

The reverse of benediction, malediction will lower the morale of opponents by a -1 penalty and lower their "to hit" scores by -1. It does not affect those already engaged in combat. No material components are required.

Meditation (Conjuration/Summoning)

- R: Touch
- D: 1 turn
- AE: Caster
- C: V,S
- CT: 3 segments
- ST: None

A minor (and non-reversible) form of remove fear, a meditation is an orison of personal encouragement that gives the caster (and only the caster) a +2 on all saving throws vs. the various sorts of magical fear attacks for 1 turn.

Petition (Conjuration/Summoning)

- R: Special
- D: 1 day
- AE: Caster's patron
- C: V,S
- CT: 1 segment
- ST: Neg.

Petitions are a staple of all prayers, in all religions. Most favors asked of one's deity are answered in terms of lucky dice rolls and other game mechanics. This orison constitutes a direct appeal of a very limited nature to the caster's deity or other patron. If the deity or patron fails his or her saving throw (2 for gods and demigods, 3 for heroes in the Legends & Lore book), the request will be heard, and if it's not too much trouble, some minion or servant of

the deity might act upon it. Examples of such minor petitions are to find something minor, meet someone, remember something forgotten, make a favorable impression, and so on. A petition is only good for one day. If it is not granted that day, or if no opportunity for its granting comes up, it is wasted, and another petition must be made the next day.

Any attempt to abuse this orison with powerful requests ("Oh, please let me find a ring of three wishes!") will be met with divine punishment if it is heard. Punishment may consist of a loss of spell-casting power, hit points, or other power or ability, as desired by the DM. However, punishments are rarely severe or last long - unless the caster is guilty of multiple abuses.

Ripen (Alteration; druidical only)

- R: Touch
- D: Permanent
- AE: 1 lb. of fruit
- C: V,S,M
- CT: 2 segments
- ST: None

By casting this orison, the user causes unripe fruit to ripen. The material component is the druid's mistletoe, oak leaves, or holly berries.

Warding (Abjuration)

- R: Touch
- D: 2 rounds
- AE: Creature touched
- C: V,S,M
- CT: 2 segments
- ST: None

This orison is a very minor form of protection from evil. For two rounds, it will prevent enchanted, conjured, or summoned creatures from making bodily contact with the recipient, by encircling him or her with magical protection at a distance of one foot. However, it gives no penalty to any attacks that do not involve such contact, and adds no bonuses to one's saving throws. To complete the spell, the caster sprinkles holy က water on the recipient.



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A different design Tips for making tournament adventures by Lisa R. Cohen

There is a big difference between creating a dungeon or adventure for an established campaign and doing the same thing for tournament play. In your own campaign world, you know the strengths and weaknesses of your players, and your players know the setting and the NPCs. If it takes five weeks for your party to get the answer to the sphinx's riddle, what difference does it make?

On the other hand, none of this can be taken for granted in tournament play. The players are generally strangers, time is limited, and conditions are rarely ideal. It is easy to underestimate the importance of the above facts, but they must be taken into account if the tournament is to be successful and enjoyable.

I have played in tournaments in which the introduction was so complex it took forty minutes of explanation before we could start playing; in tournaments in which the goal was known only to the GM; and, in tournaments in which either the dungeon or the party was so large that after three or four hours, we had covered only about 20% of the adventure. While some of this can be blamed on the incompetence of the GMs and the players, the greatest fault usually lies with the design of the tournament adventure itself.

This article will deal with the most important aspects of a successful tournament dungeon: size, level of complexity, plots, and goals. But please note that the *prime* considerations for tournament design are the needs and wishes of the convention organizers. Any restrictions they place upon size, allotted time, themes, and so on take precedence over any advice given here or even your own desires, for the simple reason that the organizers know more about what is appropriate for their convention than anyone, else does.

Size

There are four aspects to consider in terms of the size of the adventure: How many rounds, how many sessions, how many encounter areas, and how many players?

One of the first considerations for the aspiring tournament master is whether to run a single-round adventure or a multipleround adventure. Convention organizers can be very opinionated on this subject, so the decision may be made for you.

A single-round adventure consists of just that: a single round, one tournament that is run a number of times throughout the convention. A final may be added to a single-round adventure, in which the best players from all the groups compete for the title of best overall player. The biggest advantages of a single-round adventure are its flexibility (in terms of timing, number of sessions, and level of complexity) and its efficient use of manpower (it uses more players and fewer GMs), which is much appreciated at smaller conventions. Its disadvantages lie in its narrower scope and its reduced competition (that is, groups and individuals compete against each other only once and at a single level of difficulty).

A multiple-round adventure usually consists of a large initial round, one or more playoff rounds, and a final round, each level providing a progressively greater level of challenge. The advantages of a multipleround event are its heightened competition, its high level of complexity, and its extremely broad scope (some of the AD&D® open events are practically epic!).

Its disadvantages are that it is relatively inflexible in terms of the number of sessions (a *minimum* of four to eight initial sessions is needed to provide adequate competition), it requires large numbers of gamemasters of equal ability, and it runs generally fewer and fewer new players through as the convention progresses. It should be noted, however, that this last is not really a problem if the event is prestigious enough to attract a large initial crowd.

Having decided upon the number of rounds you will run, you next have to decide how many sessions to run. Convention organizers may also decide this, but if it's left up to you, keep one thing in mind: The more people you run through the tournament, the happier the organizers will be!

The limitations placed *on* you include available manpower, the length of the sessions, and the minimum number of initial sessions if your event is multiple-round. Give yourself time between sessions to score and reorganize (and maybe even to eat or sleep), and don't get too frazzled.

Next, you must decide how much time you are going to allot to each session. The average running time is usually between three and five hours. When you want to consider filling that time, it is important to remember all the elements that go into your tournament adventure. It's not like the usual game in which you just sit down and play. At a gaming convention, people have to find the right room or table (and so does the GM!). You have to read out the introduction and hand around the character sheets. Players and characters have to introduce themselves, read over and choose their spells, make their plans, and so on. If this time isn't taken into account in the adventure design, this time is lost and panic may ensue.

If it is taken into account, however, the time spent allows the GM to size up the players and allows the players to work as best they can. Given the chance, good fighters will organize and form an intelligent strategy, good spell-casters will choose sensible spells, and players in general will exchange important information (such as whose character is carrying the rope and who has the oil flasks). A gamemaster who feels she must keep the players off balance is showing a disappointing lack of confidence in her tournament design.

I like to allow a five-minute grace period for preregistered players to get to the table. After that, I go through the list of alternates. If they're not there, I grab a passerby to fill in (the convention may have specific rules for how to fill vacancies; if not, there's always *someone* waiting to play *something*). Once everyone is seated, you must announce any special rules you have, give an indication of your scoring system, and hand out character sheets. You can safely assume that all this will take from ten to fifteen minutes.

You then present your introduction to the adventure, which you have timed. You can clearly read about 200 words per minute, equivalent to one typed page. A five-page introduction usually contains all the requisite information, so let's estimate it takes five minutes. We are now twenty minutes into the adventure, and the player characters haven't set foot in the dungeon!

The next thing the players will want to do is get organized. They will take anywhere from twenty to forty minutes to do this, whether you give them the time or not. I have found that if you say to the players, "I am giving you twenty minutes to get organized, choose your spells, and so on," they will be more focused and will likely accomplish more. It has also been my experience that given this time for organization (or forced to take it, as the case may be), parties generally do better in the adventure.

We have now accounted for between onethird and one-fifth of our allotted time, and the rest of the tournament stretches out before us in unlimited reams of time. Or does it?

The most common mistake made by both experienced and inexperienced GMs is



trying to cram too many rooms, monsters, tricks, and traps into the next four hours. Having designed and run tournaments at a regional convention for several years, I have discovered that a good rule of thumb is that an average party can go through four average encounters in an hour. That means a party of four to six characters, encountering monsters of less than equal number or strength, meleeing them for approximately five to twelve minutes (real time), and spending no more than five to twelve minutes between encounters. It is fair to assume that in a tournament adventure, some or all of your encounters will be tougher than average, so don't expect a party of six to whiz through twenty rooms full of monsters in two and a half hours.

Keep in mind that the party will spend part of its time wandering around, looking for encounters, mapping, searching for clues, and checking for secret doors. Some GMs like to put in-time-wasters like levers, rooms full of silver pieces, and talking statues, just to test the party's ability to stay on track and to have a little fun. Remember also that it is very difficult to estimate how long it will take a party to solve riddles and puzzles.

The final and most important thing on which to base your time estimate is, of course, the playtest. The playtest is the only way one can really get a sense of the overall soundness of the adventure. I cannot put too much emphasis on the importance of a playtest, yet it is amazing to me how many tournament designers don't even bother. The initial playtest is simply a run-through of the first draft of the adventure. It is important that you have a group of experienced players to playtest and that they know it is a playtest.

The idea is that this group will do their best to get through the adventure successfully, but they won't want their money back if it turns out to be a disaster. Playtesting will give you an idea of the timing and will also show up the worst of the rough spots, inconsistencies and impossible situations that are hard to spot on paper.

It is possible that the playtest group will go faster and be more successful than tournament players would, especially if it is a group of players familiar with your gamemastering style. Allow the playtesters to complete the adventure, regardless of how long it takes, so that you have at least some idea of the full potential running time.

If things go wrong with your tournament, be prepared to rewrite and *retest*. The more you playtest, the better off you are.

Timing is more important in a multipleround adventure or in a single-round adventure with a final than it is in an ordinary single-round adventure. In a single-round adventure, there is no particular need to finish, so it shouldn't matter if your adventure runs a little over the time allotted. This applies regardless of the scoring system used, as the amount of the tournament the players complete (compared to other groups) is at least one indicator of their skill level. As I see it, in a single-round tournament, an average party should complete from 75% to 85% of the adventure, and a good group should complete from 85% to 99% - but only an outstanding group will actually complete the entire adventure within the time allotted.

In a multiple-round adventure, however, it is necessary that groups finish the adventure in each round before being able to move on to the successive rounds. The tournament should be designed so that all who play reasonably well will complete each adventure. Those individuals or groups with the best score then move on to the next round, having had all possible opportunities for gathering information and treasure in their previous adventure.

Finally, in terms of the size of the party itself, there are two things to consider. One is the limitations of the GM (i.e., her tolerance for controlling large groups of people without becoming unhinged), and the other is the wishes of the convention organizer. The most convenient range of players is from four to six. With less than four, they don't really have the manpower (what if a character dies?). It also poses a problem for a convention organizer who has to find places for as many people as he can during the convention. A five-player game run six times entertains nearly twice as many people as a three-player game in the same amount of time with the same amount of



space. With more than six players, you have trouble keeping the party focused. Less experienced players will not be able compete for your attention with the "pros," and the players' attention will waver and wander.

Plot, goals, and complexity

Tournament adventures are usually based on a structure not unlike the story plot. Single-round adventures are like short stories, and multiple-round adventures are like novels. A background history of the setting and a physical layout exist, which may or may not be revealed in advance. There are a few principle protagonists (the players) whose characters are more or less developed. These characters are given or discover a goal that they must achieve in a limited amount of time. This adventure is usually the most important event in that character's life.

I cannot presume to say what is or is not a good idea for a tournament adventure, but I have noticed that the most entertaining dungeons in which I've played have certain elements in common. The plots are interesting and unique, the goals are either clearly stated or deducible by logical means, and their level of complexity is both challenging and consistant.

There are three levels of complexity to consider when designing a tournament adventure: simplex, complex, and multiplex. Simplex adventures are straightforward in their goals and design, and are ideal for short time slots and inexperienced to mid-level players. They are short on puzzles and long on tough monsters and physical obstacles. That is not to confuse simplex with easy — ask anyone who's had to kill a lich how easy it is.

Simplex scenarios are more suited to single-round tournaments. It is possible to imagine a multiple-round tournament with a group of simplex scenarios, but these adventures would barely be connected. Any thread which connects one adventure to the another raises the level of the tournment to complex by its very nature.

A typical simplex scenario might be the following: An evil magic-user has kidnapped the heir to the throne, *polymorphed* him into a hood ornament, and hidden him deep in a tower guarded by orcs and surrounded by an acid-filled moat. The characters are escorted by the king's guard to the tower and told to rescue the prince or not bother coming out. Once inside, they battle monsters galore, including the evil magicuser, find the hood ornament who is to be their ruler, and return him to the king.

It is possible to change the level of the above scenario from simplex to complex by adding detail or a subplot. One way to add detail is to construct personalities for the characters and giving characters individual goals to pursue. This should be done with care, but it is useful for getting players to role-play (which in turn keeps them focused on the adventure). It also gives a character who otherwise has less to do in a given part DIDUNG

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JOHEN ENTRUM

of the adventure a more balanced role in play.

play. Please be assured here that I am not advocating that travesty of role-playing, the "pre-fab" PC. There is nothing more alienating to a player than being handed a character sheet that says: "You hate all the elven characters in the party, go berserk on any roll of 3, and can't use your longsword unless the cleric chants 'snark, snark, snark' at the beginning of each round."

Nor do I agree with a policy of setting your party members against one another or against the common goal of the party. What I am talking about is simply a brief characterization or background history of the character, like this:

"You, Addy Daz, are a gnomish thief with a penchant for the ladies, in particular the Princess of the Gnomes, Sweet Louise. In order to win her hand, you have volunteered to come on this adventure. Your own personal goal is to come out of this as a hero – a *live* hero. It doesn't really matter to you if you really are heroic, just so long as everyone thinks you are or is willing to lie on your behalf."

My husband and I used this characterization in our 1984 Cangames tournament. Suddenly, we had all these little gnomish thieves trying to out-macho all the fighters without actually endangering their lives.

Character goals can be relatively minor, such as the above example, or they can be subplots in themselves, such as finding special magic items rumored to be in the tower, or finding and killing a particular monster. Other subplots might require that the evil magic-user be captured alive or that the heir must be returned to human form before midnight. In other words, by adding complications that preclude the use of brute force in all situations, by adding puzzles that challenge the party's intellect as well as their common sense, and by giving the characters motivations apart from the common goal, you raise the level of complexity considerably. Complex scenarios are ideal for average to good players and for either single-round or for multiple-round adventures, but don't try to run one in less than three hours.

Multiplex scenarios are the most challenging and also the most difficult to design and run. In a multiplex scenario, there is, in addition to the stated goal, a second (hidden) goal or plot. For instance, perhaps the party has been hired as mercenaries by the king, and the members don't know him well. Isn't it then possible that it is the king himself who is evil, and the magic-user merely a powerful but good enemy of his? What if the hood ornament is actually a *polymorphed* djinn held in bond by the evil king, and the magic-user is working to free him?

The existence of such hidden plots can only be discovered by deductive logic (e.g., why does the so-called evil magic-user have a pseudo-dragon for a familiar?). This



requires that the players have intimate knowledge of the rules of the game or of a particular movie or book setting, if the scenario is based on such material.

You must be careful, especially since you can't choose your players, not to make the mystery too impenetrable. The players should get enough clues by the time they are halfway through the adventure to know that all is not what it seems, especially if it will radically change their actions. It then follows that you must have some alternative goals planned for when they figure it all out.

The multiple-round adventure is ideally suited to multiplexity. Here, the clues to the hidden plot can be expanded upon from initial round to final and not stuffed into a single round of play. The GM can insert red herrings to her heart's delight, with each adventure existing as a complex part of a multiplex whole.

Obviously, this level of play calls for good to outstanding players and requires a fair amount of time. If the players are not really up to the challenge, don't be afraid to give them a little help (although you can't then ethically consider them for prizes) and allow them to have fun with it. If you've really constructed a masterpiece but it is just too difficult for all but the best, be sure to make that very clear in the program book.

I would like to make a note here about illogical or arbitrary goals. They are patently unfair for the simple reason that the players can't read the designer's mind. If the hidden goal can't be deduced from the clues given, or if it is nonsensical (such as avoiding all encounters), then players will be hard pressed to find anything but frustration in the adventure.

Another "unfair" design fault is to have the whole adventure hinge on a single correct use of a single spell, especially if it is an unconventional use. I personally prefer to allow spell-casters to choose their own spells from a limited list (even clerics can be limited by the will of the gods!). If there is a spell they will need, then I give it to them with a scroll. Good magic-users will take lots of useful *knock, read magic,* and *levitate* spells, as well as their personal favorites. Good clerics will stock up on *cure light wounds* and so on.

Finally, don't forget that someone (probably you) will have to run this adventure a number of times. If it has been so overdesigned that there is only one way to solve every problem, you will get very bored very quickly. If the options are left open, the creativity of the players will make each running fresh and fun.

Editor's note

If you're interested in putting this advice in to practice, you can apply to run a tournament at the GEN CON® 19 Convention in August. Anyone who hasn't already received a judge's information packet and would like to submit an application can get one by writing to the GEN CON staff at P.O. Box 756, Lake Geneva WI 53147.
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Agents and A-bombs

Nuclear devices in TOP SECRET® game play

by Thomas M. Kane

The power of the atom has a profound effect on modern affairs and on global intrigue. The existence of atomic bombs has brought great nations to a stalemate. Superpowers now fight their battles in lesser countries and by undercover means. Radiation has also offered a frightening new opportunity to terrorists. Even without a nuclear bomb, individuals can kill thousands of people by releasing radioactive substances in populated areas. Obviously, agents in a TOP SECRET® game campaign may have to deal with these events.

Extreme caution must be exercised in nuclear situations. To excerpt from the TOP SECRET Companion, page 63: "Agents will never be issued any type of chemical, biological or radiological (nuclear) warfare device. If such devices are encountered in the field, agents should make no attempt to disarm or contain the devices. Proper authorities . . . should be notified at once, even at the risk of jeopardizing a delicate mission. . . . Caution supersedes political or national allegiance."

In the TOP SECRET game, an agent's role is to protect mankind from the misuse of nuclear devices. The appearance of the particular dangers of radiation in a campaign requires that the Administrator be familiar with nuclear effects.

The nature of radiation

All matter is made up of infinitesimal particles called atoms. These atoms themselves are composed of a central massive nucleus of smaller particles called protons and neutrons. The nucleus is surrounded by yet tinier particles called electrons. Some atoms are unstable and drop off their various components. These jettisoned particles are known as radiation. Radiation cannot be smelled, heard, seen, felt, or tasted. It is detected only by instruments, the geiger counter being most common.

After a period of such particle loss, a substance becomes more stable and less radioactive. Thus, radioactive materials are assigned a half-life, a period after which they emit only half as much radiation as they did previously. Note that two half-lives do not make a whole; a substance is not safe after two half-lives have passed. Each time the half-life elapses, only half as much radiation is emitted, so a substance never becomes entirely nonradioactive. A radionuclide is considered inert for most purposes after ten half-lives have expired.

Each element is also assigned a biological half-life, a measurement used when a person is contaminated with that element's radiation. The biological half-life is used in the same way as the physical half-life, but it is based on the rate at which a living body excretes the material. The table below lists the uses of common radioactive materials and their half-lives (y = years, d = days).

Substance Californium-252 Cesium-137 *	Use/Location radiography, medical waste, fallout	Half-Life 2.65 y 30.5 y	Biological 2.2 y 11 d
Cobalt-60 *	radiotherapy, tracing, radiography	5.3 y	9.5 d
Hydrogen-3 *	fusion byproduct	12y	12 d
Iron-55 *	used reactor material	2.7 y	2.2 y
Iodine-131 *	medical, fallout, waste	8 d	7 d
Plutonium-239	bombs, power, waste	24,000y	44d
Polonium-210	bomb components	138d	46 d
Radon-222	uranium tailings	3.8d	**
Radium-226	tracing, radiography, radiotherapy	1622 y	43.8 y

Sodium-24 * Strontium-90 * Uranium-235 Uranium-238

Substance

Use/Location	Half-life	Biological			
used breeder coolant	1 d	1 d			
medical, fallout, waste	28 y	17.5 y			
bombs, power, waste		300 d			
mining, U-235 byprod-	* * * *	15 d			
uct, plutonium production					

* - These elements commonly exist in nonradioactive form.

** - Once clean air is reached, radon may be exhaled.

*** - 710 million years

**** - 4.5 billion years

There are three sorts of atomic radiation: alpha, beta and gamma. Alpha particles consist of a neutron and a proton, making them rather large on the subatomic scale. This size also makes them easy to screen out; a piece of paper can stop alpha radiation. Beta rays can penetrate paper, but are stopped by metal foil. These particles are individual electrons. Gamma rays are not particles. This emission is similar to visible light and X-rays. A gamma ray is extremely energetic and can penetrate as much as 2 inches of lead or 3 feet of concrete.

Nuclear reactions

Atomic fission can occur in certain large nuclei. In fission, an emitted neutron strikes the nucleus of another atom, knocking more radiation loose. If enough fissionable material is concentrated together (forming a critical mass), the newly liberated particles strike other nuclei, and the process continues in a chain reaction. The atoms involved are transmuted into other materials. This atomsmashing converts matter into huge amounts of energy, just as Einstein predicted. If fission is rapid, it creates a colossal explosion, as in an atomic bomb. In an atomic power plant, some neutrons are absorbed by control rods, keeping the reaction manageable but creating sufficient heat to drive the motor for a generator, submarine, spacecraft, etc.

There are two elements which may be used for this process. One is uranium-235, and as little as 37 lbs. of it may undergo fission. The critical mass of plutonium is only 22 lbs. In nuclear facilities, a critical mass is sometimes formed by accident. The resulting explosion is called a criticality, which is as destructive as the detonation of 1-10 lbs. of plastique explosive. The area affected by the blast becomes contaminated (as described below).

Fusion reactions involve heating atoms until their nuclei fuse together, creating heavier elements. This produces much more energy than fission. Fusion is the process utilized in hydrogen bombs, and is what keeps the sun and stars alight. At present, temperatures high enough for fusion may be artificially generated only by nuclear fission. Attempts have been made at controlled fusion, but to date they have been unsuccessful.

The hazards of radiation

When an atom is struck by radiation, it is altered in various ways due to the impact. Chiefly, electrons are knocked from the atom's "shell," creating an ion (an atom with an electrical charge). Thus, nuclear emissions are sometimes called ionizing radiation. When atoms in a living cell are ionized, the cell is damaged. Obviously, then, high-intensity radiation can kill an organism. Even when less potent, this altering of cells can cause cancer and genetic mutation.

There are many methods of measuring radiation in science. The

system most applicable to TOP SECRET gaming uses the rad, or radiation-absorbed dosage. The actual formulas for determining radiation intensity are much too complicated for game play. Therefore, intensity numbers are assigned to common radioactive elements. These are not exact figures, but are designed to account for biological hazard as well as actual radiation emitted. Iodine-131, for example, binds to the thyroid gland, and for that reason is quite dangerous.

Intensity numbers of various substances

Substance	Alpha intensity	Beta intensity	Gamma intensity
Californium-252	5	0	1
Cesium-137	0	3	3
Cobalt-60	0	2	4
Hydrogen-3	0	1	0
Iron-55	0	0	2
Iodine- 131	0	3	2
Plutonium-239	7	0	2
Polonium-210	5	0	3
Radon-222	5	0	3
Radium-226	4	0	2
Sodium-24	0	4	4
Strontium-90	0	4	4
Uranium-235	4	0	2
Uranium-238	4	0	1

A number of rads equal to the intensity number is emitted by one gram of radioactive material during one hour. Thus, a gram of cobalt-60 emits two rads of beta particles and four rads of gamma radiation in sixty minutes. There are 28.35 grams in one ounce; thus, a pound of cobalt-60 yields 2721.6 rads per hour (907.2 rads of beta, 1814.4 rads of gamma)! This dosage is quite fatal. Radiation intensity is inversely proportional to the square of the distance between the source and recipient. Since intensity numbers are figured for 5', at 10' the intensity would be one-quarter. At 15', one-ninth normal strength would be received. Actual contact with radioactive materials is covered below.

Radiation poisoning

When exposed to large amounts of radiation, agents suffer acute radiation syndrome. Details of this are given below. Radiation damage is cumulative over one year's time, so an agent who receives ten rads a day for thirty days is affected as if he had suffered 300 rads. With dosages under 2,000 rads, no effects are felt for 1-10 hours.

5-199 *rads:* No symptoms of acute radiation syndrome are felt at this stage, but genetic damage and cancer may be a threat. For every live rads received, there is a 1% chance that the agent will die of cancer in 3-30 years. This probability cannot exceed 40%. The same check must be made to determine genetic damage in any off-spring of the victim, with results applied by the Administrator as seen fit.

200-399 rads: The agent suffers nausea, reducing his coordination and physical stamina by 50%. This effect lasts for one day per 100 rads. His immunity system is depressed, and there is a 5% chance of contracting an incidental disease, reducing his physical strength by 10%. After seventeen days, hair loss and skin hemorrhages occur. Charm is reduced by 30% for 1-100 weeks. Also, over seventeen days, the agent's life level drops down to half. If untreated, there is a 10% chance of death for every 100 rads received. Death occurs twenty days after the exposure. If the agent survives, life levels may be regained normally. Other saves must be attempted to avoid cancer or genetic damage. Treatment, including blood transfusions, sedatives, and antibiotics, may prevent fatalities and incidental diseases.

400-1999 rads: All symptoms are described above, but without therapy the agent dies in twenty days. If treatment is available, a save vs. radiation may be attempted using the above system (10% chance of death per 100 rads). Exposures over 900 rads are always fatal.

2000 + rads: The agent loses consciousness in 1d10 minutes and dies within 1d10 hours.

Contamination

An agent who physically contacts radioactive material may become contaminated with it. Worse yet, contamination may be spread to whomever or whatever the victim contacts. A person is contaminated by direct contact with radioactive material, by entering a contaminated area, or by contacting contaminated objects or people.

If an agent is contaminated, the Administrator generates a *contamination number* by rolling percentile dice and applying modifiers. Use of a gas mask or scuba mask reduces the die roll by half (x½). Swallowing or inhaling the material adds 50 to the result. The contamination number is then used to get a digit between one and four (01-25 = 1; 26-50 = 2; 51-75 = 3; 76-00 = 4). The result is multiplied by the sum of the material's intensity numbers for each form of radiation (alpha, beta and gamma). The total is the amount of rads received by the agent in one day. If the agent contacts more than one substance at a time, the initially generated contamination number is used for each material. A contamination number never exceeds 100%.

Atomic installations have radiation alarms at their doors. If an agent triggers an alarm and is captured, he is then stripped of all clothes (possibly revealing weapons, stolen materials, etc.) and vigorously scrubbed. This scrubbing is painful and results in a loss of five Coordination points for one day. Any contaminated objects are disposed of. Decontamination subtracts 50 from the agent's contamnation number. If the contamination number was greater than 50%) what contamination remains is internal and may not be spread, although the agent still suffers exposure. This radiation is halved with each expiration of the biological half-life. Certain drugs cause internal contamination to be purged twice as rapidly, but they also reduce physical strength by 5% while treatment lasts.

One important exception to the above concerns plutonium-239. Once this substance is ingested, in almost *any* amount, the person is as good as dead. Plutonium-239 comes to rest on the inside of bones, where blood-cell manufacture occurs in the marrow. Once here, it completely destroys all blood cells around it, killing the victim in 1d10 days. No other known substance is as dangerous and toxic as plutonium, and agents who are aware that such material exists in their immediate area should exercise extreme caution. No antidote or treatment exists that will reverse this substance's effects.

Reactors and accidents

Nuclear reactors contain huge amounts of radioactive material. If an atomic plant were damaged, by accident or design, the local areas would be devastated by radiation. Direct rupture of the reactor is fortunately difficult. The fuel is held in metal fuel rods and the entire fuel assembly is contained by a reactor vessel of 10" steel, in a building of 1"-thick steel. The whole plant is then covered by 3' of reinforced concrete. However, the temperature at which a nuclear power plant operates is so great that, if not cooled, the reactor vessel would melt through the floor (the famed "China Syndrome"). Not only would this release radioactive material, but, if the sinking core struck water, a huge steam explosion would result.

There are three common methods of cooling a reactor. The most usual is the boiling-water reactor (BWR). In it, water is simply pumped in to be boiled and create steam, which is used to power a generator. Pressurized water reactors (PWRs) are also common. A PWR keeps its coolant under pressure great enough to keep it from boiling. The cooling pipes then exchange heat with water contained elsewhere, producing steam. Nuclear ships use this form of reactor. In a high-temperature gas-cooled reactor (HTGCR), normal fuel rods are not used. This plant uses cooling gas which is pumped through a core of graphite and uranium carbide. The gas heats water, which drives a steam generator.

The experimental breeder reactor is more dangerous. In it, the reaction is blanketed with uranium-238, which is thereby transmuted to fissionable plutonium. This form of plant runs at much higher temperatures than previously described, and must be cooled by liquid sodium. The coolant in the reactor becomes radioactive. This means that its temperature must first be transferred to nonradioactive sodium, preventing contamination of the environment. The nonradioactive sodium heats water, producing steam. Sodium explodes on contact with water, so any leak can result in a meltdown. Every effort should be made to prevent terrorists from destroying atomic plants. But should it occur in a campaign, this table may be used for results.

Meltdown effects

	Meltdown	Area	Explosion
Plant type	chance	contaminated	chance
BWR	60%	1-100 sq. miles	40%
PWR	50%	1-100 sq. miles	50%
HTGCR	60%	1-100 sq. miles	60%
Breeder	85%	2-200 sq. miles	85%

The meltdown chance is the likelihood of a disaster should the primary cooling system be impaired. If a plant melts down, the indicated number of square miles become contaminated. Explosions destroy normal structures and cause 5-50 points damage in a radius of 200-2000 yards. At up to twice the rolled distance, 1-10 points damage is inflicted. If an explosion occurs, the maximum area is always contaminated. The contaminating materials are strontium-90, cesium-136, iodine-131, uranium-235, plutonium, and, in breeders, uranium-238.

Usage of atomic material

Although use of nuclear warfare devices is strictly taboo, there are nuclear procedures that our agents may carry out. Likewise, foes may use these methods, and agents should be aware of them. X-rays are usually used to detect concealed objects, but they can only detect suitably dense objects located within soft material (such as a gun in a suitcase). Californium neutron radiography is a superior "X-ray" method. This allows clear examination of the contents of all containers, but it is not sensitive to changes in color (it won't allow the reading of sealed documents, for example). Also, californium is highly radioactive and may not be transported in the field. Objects larger than 2 square feet cannot fit into the CNR device.

Assassins could well take a leaf from terrorists and expose opponents to damaging radiation dosages. However, this method is only tolerable in extreme situations. Caution must be exercised, since the handling of nuclear material may leave a trail of contamination. The Administration will *never* issue radioactive material to agents for this purpose.

Dilute radium powder has been used for some time as a tracer. An object or person may be contaminated, so the subject's movements can be followed with a geiger counter. More is said on this in the TOP SECRET rulebooks. The radiation involved is harmless, but it may trigger alarms in nuclear facilities.

Safety precautions

Alpha and beta radiation can be blocked without much difficulty. For this reason, those who must work with radioactive materials wear protective clothing. The clothing is of two types, either dense rubber or tissue paper. Both forms prevent contamination unless damaged. Rubber clothing blocks all alpha particles and beta particles. It may be washed and reused. Paper clothing merely negates alpha exposure. It is discarded after use and is ruined if wet or torn. As well as protection, these uniforms set workers off from intruders. Those caught within a nuclear facility without a proper uniform must fool their captors or, failing that, evade them to avoid arrest.

If protective clothing of this nature is used, the appropriate changes must be made when calculating the total intensity numbers for radiation to which a contaminated agent has been exposed. Thus, no alpha radiation amounts are considered for an agent who is wearing paper protective clothing, and so forth.

Great care must be taken to isolate nuclear material. When being transported, it is kept in reinforced lead-lined containers, requiring twenty-four sticks of dynamite or 2.5 lbs. of plastique to break. While being processed, highly radioactive substances are kept in gloveboxes. These are sealed window boxes with affixed rubber gloves extending inwards. The air within the box is kept at low pressure, so that if the box is punctured, outside air is sucked inwards, allowing less radioactive material to escape. Gloveboxes and traveling centainers block all radiation unless damaged.

To detect radiation leaks, nuclear workers wear film badges.

These are chips of photographic film worn like jewelry or on one's outside shirt pocket. Radiation exposes the film, alerting officials to leaks. In some cases pencil dosimeters are worn. These are pen-sized cylindrical tubes that give immediate readings on radiation received.

Obtaining radioactive material

Obviously, every effort must be made to keep terrorists and other undesirables from possessing radioactive substances. Thus, the methods that might be used by nuclear thieves must be understood. It would be difficult to steal radioactive material from a nuclear facility without setting off a contamination alarm. Lead shielding is not helpful, since nuclear facilities are also protected by metal detectors. Precautions taken by facilities vary, though, and it is not impossible for unauthorized persons to obtain radioactive substances. No nuclear installation is invulnerable to having its managers bribed, for example.

Because of the extreme danger, careful records are kept of the location of radioactive materials. Users of radiation must submit these to the Nuclear Regulatory Commission. If any discrepancy occurs, a thorough search of the plant is made. Pipes are flushed with acid, and the area is patrolled with geiger counters. Some material is never found, and it is declared MUF (material unaccounted for). So far, 8,000 lbs. of plutonium have been reported missing. Since radioactive materials are so desirable to terrorists, agents are advised to do their own research on MUF incidents, infiltrating nuclear facilities and tailing shipments. Atomic terrorists may well leave a trail of contamination, allowing them to be followed with geiger counters.

Rapid decommissioning

In war zones, nuclear reactors are very dangerous. Not only could they be ruptured, releasing radiation, but enemies who gain control of them could conceivably build atomic bombs. It is imperative that such facilities be destroyed. This has actually occurred. In April 1975, as the government of South Vietnam collapsed, its one nuclear power plant was secretly dismantled by a team of Americans. The fuel assembly was lifted from the reactor vessel (using the crane provided for refueling) and flown to the United States. Then the reactor building was dynamited.

If this is done properly in the game, only one square mile is contaminated, with iron-55. However, the removed fuel rods are extremely radioactive. Each contains 2-20 lbs. of each product listed in the section on reactor accidents, except for uranium-235, of which there is 5-500 lbs. Disposal of these rods must be left to authorities not connected with an agent's Administration.

Location of nuclear material

Uranium is mined under low security, as it is quite impure. After mining, it is purified to yellow cake, an earthy yellow material. The sandy waste materials are known as tailings and emit radon gas. Almost 90% of yellow cake is useless uranium-238. In order to separate out the useful uranium-235, yellow cake is shipped to a gaseous diffusion plant, where it is converted to uranium hexafluoride, a gas. This is then run through a huge network of barriers until the lighter uranium-235 rises to the top. After this, the material is converted to a metal again. At this point, protection from terrorists is warranted.

At another plant, the uranium-235 is formed into fuel rods or explosives. The uranium-238 may be converted to plutonium by neutron bombardment, but often it is discarded. After use in a reactor, fuel rods may be reprocessed, yielding plutonium. However, this process is presently suspended in the United States and performed only in the U.S.S.R. and Great Britain. The many waste products (see the section on reactor accidents above, for a list of common elements within reactors) must be disposed of permanently. Terrorists may well attempt to raid waste dumps, since these materials are extremely deadly, if not fissionable.

Research labs and large universities often possess radioisotopes and even small reactors. If a terrorist group is known to be seeking nuclear material, these institutions should be monitored. In addition, radiography is performed in many industries. Hospitals and medical clinics usually own some radioactive materials.

Atomic bombs

There are two sorts of nuclear explosive: gun bombs and shell bombs. The gun bomb consists of a tube with a conical piece of uranium-235 at one end that may be fired through the pipe with conventional explosives. At the other end is a round piece of uranium-235, with a cavity to admit the cone. Each piece weighs slightly less than critical mass. To cause an actual explosion, rather than a criticality, a neutron-producing alloy of beryllium and polonium is applied to the uranium components. The Hiroshima nuclear weapon was a 13-kiloton uranium gun bomb.

The more advanced bomb type, the shell bomb, uses several wedge-shaped pieces of plutonium wrapped with plastic explosive. When the explosive detonates, each piece is fired into place, forming a ball and attaining a critical mass. In addition to the beryllium alloy, most shell bombs are wrapped with uranium-238. This reflects neutrons inwards, enhancing the explosion. A hydrogen bomb consists of a mass of deuterium (an isotope of hydrogen, having only one neutron) within a shell bomb.

Hydrogen bombs would be beyond the reach of a terrorist, without a factory, materials, and workers at his disposal. But small atomic bombs could conceivably be built by small groups that obtain the proper materials. In building a fission (atomic) bomb, a terrorist would need a supervisor with chemistry and physics AOKs of 80 or more. The bomb-builders must have a metalworking shop, but unless special precautions are taken, the workers may be contaminated. It requires 200 worker/days to build the explosive. No more than twenty workers may efficiently work on the same bomb. The supervisor of the group must check for deactivation each day; if the check is failed, the group is contaminated, and the day's work becomes useless. After construction, the bomb must be taken to the target area and a means of detonation established.

A completed bomb can be as large as a 15' long, 3' wide cylinder, down to a 1' diameter sphere, depending upon the level of sophistication possessed by its builders. Size is of little relevance in atomic bomb manufacture; the key element is the technological ingenuity that goes into it.

Any means possible may be used to prevent terrorists from building an atomic bomb. Should it be built in spite of all efforts, a lastminute search of the target area may allow it to be located and disarmed. Disarming a bomb requires the same AOK scores as building one and takes 1-10 hours. At the end of that time, the disarmer checks deactivation. If it is failed, those within 10' become contaminated. If a 00 is rolled, the bomb explodes with full power.

The consequences of even a small bomb's detonation are tremendous. Most sources estimate that a fission bomb produced by terrorists would have a yield measured in the tens of kilotons at worst, though the large industrial cities of Hiroshima and Nagasaki were obliterated by such "small" devices. [See the accompanying article on the effects of nuclear blasts for more detail.]

Nuclear explosions occuring near or on the ground produce great quantities of radioactive debris, known as fallout (since it falls out of the sky as ash). The area covered with fallout is contaminated with the products listed in the section on reactor accidents. Shell bombs also spread uranium-238. The detonation of any nuclear device above ground or in shallow water will produce the characteristic mushroom cloud, which can reach altitudes of up to 40,000' in the case of a 20-kiloton device. This will spread fallout over an enormous range, usually thousands of square miles.

"Broken arrows"

Nuclear weapons, like peaceful nuclear devices, have incredible potential for disaster. Although a nuclear bomb is unlikely to go off in an accident (known in military lingo as a "broken arrow"), contamination of the crash area is likely. The study of a damaged weapon could reveal many elements of the design of the weapon and its weaknesses, making it vital that the remains do not fall into enemy hands. Likewise, enemy nuclear devices should be recovered if possible.

These incidents could occur on the arctic icecap or other remote areas. For example, a B-52 crashed near Thule, Greenland, with four plutonium bombs aboard in January 1965, scattering the plutonium over a wide area of ice and snow. But "broken arrows" may occur in inhabited areas, as did the crash of a B-52 with four H-bombs near Palomares, Spain, in 1970. Agents should be prepared to search in any location.

Certain manned and unmanned spacecraft are powered by SNAP (space nuclear auxiliary power), deriving electricity from the heat of decaying plutonium. These satellites are not usually sensitive to national security, but accidents with them may still require investigation, or defense from enemy agents and terrorists. The re-entry of Cosmos 954, a Soviet spy satellite, over Canada in 1978 scattered nuclear material over a wide area, prompting a major search-and-decontamination mission known as Operation Morning Light. Fortunately, this area was only lightly inhabited. The re-entry of Apollo 13's lunar module descent stage posed a problem in April 1970, as it contained a small nuclear plant aboard it. (Had the Apollo 13 mission not been aborted, the descent stage would have been left safely behind on the Moon.) However, the lunar module was completely destroyed upon re-entry, along with its reactor. Similar events could conceivably occur in the near future.

Atomic diplomacy

With the stakes so high, nations have made agreements about nuclear materials. It is very important to monitor any nation suspected of cheating in such a bargain. These are several treaties that should be monitored.

The ABM Treaty: Antiballistic missiles have a profound effect on nuclear strategy. Because of this, the SALT treaty limited the number of ABM installations to two per nation. Since then, it has been reduced to one. (The Soviets have an ABM site at Moscow, but the Americans have no ABM facilities at present.) Should an agent suspect that an ABM site is under construction, he should gain proof of it and then contact his Administration. Since effective ABM systems are extremely difficult to design, it may be more useful to have agents uncover the workings of an ABM project than to immediately halt its creation. Of course, such a project could ruin the world balance of power. Therefore, completion of a new ABM system must be prevented.

The Limited Test Ban Treaty: Both the Soviet Union and the United States have agreed not to test atomic explosives, except underground. This may be monitored by satellites, but human agents may be required to gain proof of a test's "proper conduct." Also, the Administration may be interested in the data gained by the enemy country in the test.

The Antarctica Treaty: It has been suggested that nuclear waste (which is hot from the temperature of nuclear reactions) be placed on the southern icecap and allowed to melt a hole for itself. The hole would then freeze over, burying the waste. Due to environmental concerns, this method has been forbidden. This treaty is not directly important to national security but may yield clues to interesting events. The South Pole is so remote that a nation is unlikely to defy agreements to dispose of waste there. But the evidence from a banned or secret project could well be disposed of on the icecap, so antarctic dumping could be a very important thing to explore.

We cannot overlook the possibility that another country might export nuclear material to terrorists. Agents must watch other nation's nuclear dealings as closely as our own. Terrorists *must* be prevented from having atomic capabilities. Interfering here is a touchy diplomatic situation, especially when a hostile country is the culprit. Extreme discretion is advised.

Running a nuclear scenario

Throughout this article there are many suggestions for missions that agents might undertake. The Admin should keep in mind the hysteria that may occur if citizens learn that nuclear terrorism is taking place. Because of the dangers involved, much more drastic measures than usual can be tolerated in twarting nuclear espionage and terrorism. All in all, radiation cannot be taken lightly in real life and can have a powerful impact even in a role-playing game.

Several TOP SECRET modules dealing with radiation have been published, in both DRAGON® Magazine and by TSR, Inc. They can be quite useful for reference and inspiration, as well as being excellent adventures in themselves. *"Mad Merc"* (in DRAGON issue #56) is a good example of infiltration of an enemy nuclear facility. It also gives rules for radiation damage from a radioactive materials vault, on page 45. Radiation damage from a damaged nuclear reactor is given on page 46. *"Operation: Whiteout"* (in DRAGON issue #87) is a good example of the investigation of a nuclear accident and possible treaty violations. TS 008 *Operation: Seventh Seal* is a good example of the apprehension of terrorists who are building a bomb (though of extreme size).

Other suggestions for nuclear adventures include the apprehension of foreign agents who are stealing nuclear secrets or material, avoiding contamination by an enemy agent, the decommissioning of a facility that is near capture or has been captured by hostile forces, the infiltration of an enemy nuclear facility, the "protective" infiltration of a nuclear facility, the investigation of the corrupt staff of a nuclear facility, the investigation of a nuclear accident, the investigation of treaty violations, and the recovery of lost nuclear material.

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* – These books contain explicit game-applicable information on the science involved.

** – Although these books are quite controversial, they contain a lot of possibilities for scenarios.

After the blast In case it matters, how to play out bomb effects by Roger E. Moore

Because hydrogen bombs are out of the average terrorist's reach (as well as nearly everyone else's reach, except for certain major governments), agents in the TOP SECRET® game are most likely to encounter kiloton-level devices in the field. The table below describes the effects of such "small" devices. Megaton-level devices are so massively destructive that little could be gained from describing them in game terms. If you're close enough to notice it, you're much too close.

Each figure given in the body of the table shows the radius in which each effect occurs. In other words, lethal radiation is taken within a 1500' radius around the burst of a 1-kiloton weapon. The effects from the table are cumulative; outside the dead zone; agents will be subject to radiation, burns, and blast effects, and will take each of the three kinds of damage (subject to any shelter or protection used by the agents). Thus, an agent at 5000' from a 10kiloton burst will suffer minor radiation poisoning, moderate burns, and severe blast effects, for totals of 2d10 debris damage, 1d10 burn damage, and whatever results the radiation poisoning gives. The agent can avoid some or all of the debris damage by jumping for cover at this point.

The maximum range of atomic blast effects extends far beyond this table. Light damage from an air-burst, 20-kiloton device will extend as far as eight miles, though few casualties will occur on the human scale.

The effects of the electromagnetic pulse

(EMP) produced by a nuclear blast will likely destroy all communication devices, automotive ignition systems, computers, and similar electronic devices within a wide range. Exact information on this effect cannot be found, though an Administrator could assume that all such devices within a radius of two miles per kiloton are rendered useless.

It must be noted that this table is based upon a great deal of guesswork. Sources vary with regards to the blast effects they describe, and translating these into TOP SECRET game terms is difficult at best. Depending upon the quality of the bomb, its design, location, and other factors, these blast effects could vary considerably. The Administrator should use great discretion in applying these effects in the game, and should be prepared to modify effects as necessary.

Table of kiloton-level blast effects

Effect	1 kt	10 kt	20 kt
Dead zone	1000'	1500'	2000'
Lethal radiation	1500'	2000'	2500'
Median-lethal			
radiation	2500'	3750'	4250'
Minor radiation	4000'	5000'	7000'
Severe burns	1500'	4500'	6300'
Moderate burns	3000'	7000'	7750'
Minor burns	4000'	8000'	10,000
Extreme blast	2500'	3500'	4500'
Severe blast	3000'	5000'	6300'
Moderate blast	4000'	8000'	10,000
Fire storm	doubtfu	ıl yes	yes

Definitions of effects

Dead zone - Because of the extreme effects of the shock-wave blast, heat, radiation, and so forth, the chances of finding survivors within this area are virtually nil. All structures will be damaged beyond repair or completely destroyed. Lethal radiation will remain in this area (especially from ground-burst bombs) for several days, though a protected person may be able to drive quickly over the area after several hours pass, and walk over the area a day later. Staying at ground zero for any length of time before the day is up may prove fatal. Assume that anyone in the area will take 1000 rads after the burst, decreasing by 100 rads per hour until 500 rads is reached, then reducing the amount by 10 rads per hour.

In addition, a ground-level burst will completely destroy everything within a certain range. A 1-kiloton bomb will produce a crater 150' wide, easily cutting any large skyscraper (like the World Trade Center buildings) in half. A 20-kiloton bomb will produce an 800'-diameter crater that is 100' deep, and will produce ground-shock effects equal to an earthquake measuring 5 on the Richter scale if fired underground.

Wind speeds from the shock wave within the dead zone are usually in excess of 500 mph immediately after the blast. Buildings with 10"-thick concrete walls and heavy steel frames are crushed flat. Only shelters placed deep underground may survive.

Lethal radiation - Agents take 1000 +

rads of gamma radiation from the burst. (See the previous article for the specific effects of high levels of atomic radiation.) This damage is taken immediately when the weapon goes off.

Median-lethal radiation — Within this radius, agents take an average of 500 rads of radiation (giving them a 50% survival chance). This damage is taken immediately when the weapon goes off.

Minor radiation – Agents take 100 rads of radiation immediately from the burst.

Severe burns – Agents lose 4d10 Life Level points from extreme thermal burns. Heavy clothing reduces this to 2d10; special protective garments reduce this to 1d10. Only shelter in a strong structure or vehicle can negate this damage. This damage is taken immediately when the weapon goes off.

All flammable material in this area ignites instantly, though the shock wave blows out most fires within seconds. Many fires will reignite, however, and spread to all combustible material.

Moderate burns – Agents take 1d10 points of damage from moderate burns from the nuclear flash. Heavy clothing reduces this to a loss of 1 point; special protective garments reduce this to no loss of points. All flammable material ignites, and fires are extreme and widespread.

Minor burns – Agents take 2 points of burn damage from the burst immediately upon detonation. Heavy clothing or any form of shelter negates this damage. Fires are widespread, all ignited at the moment of the burst.

Extreme blast — Agents within this radius take 5d10 points of damage from the blast wave and flying debris, making survival in the open very slim. Buildings with 12"-thick brick walls are destroyed, as are light concrete buildings and those with steel frames. All multi-story buildings are destroyed or rendered uninhabitable. Wind speeds immediately after the blast will be in excess of 150 mph.

Severe blast - Flying debris (broken glass, rock, vehicle parts, etc.) causes 2d10 points damage to all within this radius, unless characters remain within heavy stonework, reinforced-framework, or underground shelters. Because the blast is associated with the shock wave generated by the burst, an agent has a chance to dive for shelter in a ditch, behind a car, etc., if he detects the initial flash from the burst - but he can only do this if he is 5000' or more from the burst, as this allows him the necessary three seconds of reaction time to take cover. Buildings with walls of 9" or more thickness will stand, though they will suffer extreme damage.

Moderate blast — Flying debris causes 1d10 points damage to all within this radius, unless characters remain under heavy cover (thick walls, behind armored vehicles, etc.). See above note on avoidance of the shock wave from the burst. Most homes and buildings will remain standing, though suffering from severe fire damage and (in the case of small, wood-frame buildings) severe blast damage.

Fire storm - If a weapon of 10 kilotons or greater power is exploded at a moderate altitude (2000') over a city, it will produce a fire storm from the massive amounts of material set aflame by the burst. The fire storm begins twenty minutes after the burst, reaching its peak two to three hours later with wind velocities of up to 40 mph or more. The fire storm for most such bursts will usually burn itself out in six to seven hours. The fire storm causes 2d10 points of damage per turn to anyone caught within it. Though it may vary, the fire storm will probably be up to 1000' in radius. The fire storm drains all oxygen from the area, producing suffocation in one minute. The fire storm may generate black, ash-filled rain over a wide area within minutes after it begins.

Exploding a 20-kiloton nuclear device in shallow water produces an assortment of effects. All ships and structures within 1500' are destroyed. At 2700', all ships and structures are severely damaged; all submarines and half of all surface ships will sink. Ships out to 3000' will be immobilized by damage to their engine rooms and propulsion systems, and those out to 3600' will suffer serious loss of efficiency (destroyed communications, structural damage, ondeck cargo lost, etc.). Partial damage (resulting from the shock-wave blast through the air and water) will be felt out to one mile or so, and light damage (broken windows, cracked plaster, minor flying debris damage) will occur out to two miles.

In addition, a 20-kt shallow water burst, though it will not produce severe thermal effects far from the burst, will hurl tons of radioactive water and material over a wide area. Median-lethal radiation will be spread over an area 1-2½ miles in radius, and minor radiation will be spread out to four miles or more from the burst. The blast will also send a tremendous wave toward all nearby shorelines, ranging from nearly 50' in height above the regular water level at 1000' from the blast center to a 9' wave a mile from the burst.

Guidelines

If you're interested in contributing an article to DRAGON® Magazine, the first thing you need is a copy of our guidelines for writers. Send a selfaddressed, stamped envelope to "Writer's guidelines," c/o DRAGON Magazine, P.O. Box 110, Lake Geneva WI 53147; and we'll send you back a sheet with all the basic information you need to make sure your manuscript has the best possible chance of being accepted.



The plants of Biurndon One DM's version of specially designed greenery by Eric W. Pass

Editor's introduction

Dungeon Masters often spend a lot of time deciding on the geography of their campaign worlds, and an equal amount of time populating the world with animals and monsters. Most of the time, however, they don't consider the idea of "fantasy vegetation." Likewise, the rules of the D&D® and AD&D® games make no mention of the different sorts of plant life that might be found in the game world — which means that the opportunities for "customized" shrubbery grasses, and trees are limited only by the DM's imagination.

In this article, Eric Pass describes how he has taken advantage of this opportunity in his campaign world. The article includes descriptions of 13 trees and herb plants that are unique to this world, plus other related information. You can transplant these directly into your campaign if you like them the way they are, or you can consider this article as a source of ideas for how to accomplish the same purpose in your world.

The following information is divided into three parts. Section 1, "Plant Resources of Biurndon," can be given out to players as common knowledge that all player characters would know, or would have easy access to. Section 2, "Wisewit's Notes," contains information that would not be known by player characters at the outset, but which can be obtained by special effort. Section 3, "DM's Notes," is game-applicable information to be used by the Dungeon Master.

Section 1

Introduction

Respected Master -

As you we'll know, part of every apprentice sage's curriculum is to study and evaluate a manuscript prepared by a source outside of the Sages' Guild. I humbly submit this report as fulfillment of the second stage of my training.

The document I have reviewed was written by an anonymous member of the Church of St. Aidan in the keep of Biurndon, located about fifty miles northeast of our city of Kliatoth. According to the archives, Aidan was a cleric of Jaciloth (the state religion of the Imperial Realm) who was martyred in the crumbling of the Imperial Realm about four hundred and fifty years ago. The records state that in the assault of the castle at Sirmon, which was loyal to the ruler of the Realm, Aidan attempted to prevent the ransacking of his superior's private library by the soldiers of the Duke of Kithmanor. Aidan was unceremoniously slain, but became a figure of local legend when all of the participants in his slaying were struck deaf and dumb within a week.

A cult grew up around this legend, spreading eastward over the years toward Biurndon. The Church of St. Aidan was established in Biurndon about sixty years ago. There are currently two chapters in Biurndon: one in the Keep, the other here in Kliatoth. Membership totals no more than five hundred people. The tenets of this church speak of justice to all and preservation of the written word. Admirable intentions, indeed.

Presented herein are the original manuscript as written by the Church, and my corrections and notes to this manuscript. All of my corrections and notes were derived from several months of intensive research, in the Guild libraries here in Kliatoth and in Deeyil in South Fief.

Respectfully,

Detiran Wisewit, sage-in-training

PLANT RESOURCES OF BIURNDON

Plant resources of Biurndon consist of two groups: (a) trees and shrubs; and (b) flowers and herbs.

Sages have documented twenty-four different species of tree in Biurndon. An examination of each species is beyond the scope of this work, but six species are briefly discussed here. There are innumerable shrubs, flowers, and herbs to be found in the province. This manuscript selects seven of these plants to be mentioned.

Trees and shrubs

Sticktree

The sticktree is a small (15' average height), long-living conifer with a heavy bark averaging two inches thick. It is found in sunny glades within pure stands of coniferous forest. It requires a very sharp axe to cut one down, and many a man has been injured when his blade bounced off the bark. The wood can be burned, but the tree is harvested for its resin and cones. The resin is used by merchants as a strong glue, and masons mix it with mortar. It is also a primary ingredient in glassblowing, pottery, and alchemy. The hourglass-shaped cones can be boiled to extract an oil used in perfumes or as a flavoring for baked goods. The sharp, pungent perfume created from this oil is in demand in the fashionable cities of the West, where it is sold under the name of "Forestfresh" fragrance.

Rivertree

This sturdy tree with drooping foliage attains heights of 25'. In Biurndon, it is found along the moist banks of the Nyre River, overhanging shady pools. Its branches trail in the water, where they provide shelter for many aquatic organisms. The tree's water supply is supplemented during dry seasons by the absorption of water through these trailing branches.

River crocodiles are notorious for resting under the shady canopy and ambushing animals at the water's edge. Some sages say that the tree strains nutrients from the water and thus derives some indirect benefit from concealing the predators. Others say that the tree attempts to warn potential victims by dripping water from upper branches when a crocodile is present. Believers say that the tree is weeping crocodile tears when this happens.

Papertree

A slender tree of medium height, the papertree is named for its white, paperlike bark, which has many uses. The Klaavarians (a native race of Biurndon) use all parts of the tree to make boats with which to travel the many small streams of the Upper Nyre. The natives also carve their totems and amulets from this wood. In a pinch, the inner layer of bark can be eaten, as it contains many nutrients. The wood burns well, but quickly. It is preferred by carvers because of its line grain and texture.

Medicinetree

This small, slender tree yields an orange berry that is commonly collected by alchemists, healers and spell-casters. Only healers seem to make productive use of it, creating a nourishing beverage which is said to strengthen the body eighteen different ways, firm one's resolve, and clear the mind. Its leaves are used in high-priced teas, having a distinctive nutty flavor and passing on some benefits of the berries.

Redtree

The deciduous forests of Biurndon are dominated by this large tree. It can reach

70' in height and 4' in diameter. Its leaves have five points, of which one is the stem. The tree's name comes from the brilliant red color the leaves adopt during the autumn months. Its sap is collected in the spring and boiled down to a sticky, sweet syrup. This syrup is concocted by the Klaavarians and sold during the Spring Festival, where it commands a high price.

Natertree

This extremely rare tree averages 15' in height, with a lower-base branch circumference of up to 5' that tapers to 1' at the crown. The natertree prefers deep forest, where the light is dim. Studies have shown that growth of this tree is optimized when light is reduced to 5% of daytime intensity. It grows only in pure stands. Because of its structural flexibility, naterwood is excellent for use in making bows.

Flowers and herbs

Lenthal

Lenthal is a small, ground-covering relative of the ivy. Its leaves absorb liquids of all sorts, and are often used to prevent intoxication from alcohol by placing a leaf under the tongue. This is a common trick of thieves and card cheats.

The leaf can be crushed to provide a curative for many poisons and is useful in drawing poison from a wound. A package of lenthal leaves is standard equipment when traveling in snake country. Because of its many benefits, it is rarely found in the wild but rather is carefully cultivated.

The elves have known about this plant for centuries and first introduced it to humans. Such is its rarity in modern times that it has no other name than its elvish name.

Graveolens

This is a rare, evergreen perennial that has a smooth, branching stem and small, bipinnate blue-green leaves. The flowers are small and yellow, and bloom throughout the summer, waving gently at the top of the 2' stalk. The graveolens prefers poor, rocky soils on sunny flats, and dies rapidly when shaded. Its cultivation potential is average, and it is usually found in healer's gardens.

Graveolens is a preventative against contraction of contagious diseases, including lycanthropy. The leaves and flowers are crushed and pressed, yielding an oil which can be used as a disinfectant. Because of its strong, bitter taste, only small quantities of the oil are required in any potion. The plant can be preserved, though its usefulness is ended once it ceases to be aromatic.

Boneset

This is a small perennial flower growing to 1' in height. It can be found in damp places such as ditches or river banks. Its dull lilac or purple flowers bloom for a short period in the spring only.

The leaves can be used to make a spicy tea that has curative properties, but its

flowers are its reason for collection. If the flowers are collected while in bloom on a moonless night and preserved, they can be used to make a powerful solution that rapidly closes and heals wounds. The plant cannot be grown under controlled conditions, such as the plot of a healer or gardener, and it is said that the goddess Flora watches over this rare plant. A good indication of a healer's abilities is reflected in the amount of boneset one has in stock.

Redoil

This common plant is the fundamental material of the healer's art. A small flowery herb, it is found dotting grasslands, woods, hedges, and meadows with its cheery yellow flowers during the short summer months. Its pale green leaves contain the glands which secrete the plant's fabled red oil. Because of its commonness, there is no need to cultivate the plant in the garden.

The oil can be used as a rub for bruises, a salve for nicks and cuts, or a preparatory packing for open wounds. A traveler would be well advised to purchase a vial of redoil before a journey. Because of its inexpensive cost (1 sp/oz.), it can be used as a foot rub, if nothing else, at the end of the trip.

Angelica

Diligent search of the undergrowth of the forest may turn up this small flower. Its large leaves and thick stem separate it from the many seedlings with which it competes. This plant has a special meaning to the Church of St. Aidan, because it was this humble plant which St. Aidan gave to Agreg, his first follower, as a token of his caring. The halo of petals about the head of the flower affirms St. Aidan's love for his followers.

The flowers, as well as the leaves and stems, are pale green in color. The plant is easiest to find in the spring, because it flowers in the month of Bloodstone when snow still covers the ground. Its fresh, minty flavor suits it to teas, and the flowers can be used as a garnish or a corsage.

Blue tonic

This medium-sized perennial flower has pale green, oblong leaves. The flowers are bright blue in color and grow in clusters around the stem. Blue tonic is found in open, rocky ground on the sunny sides of slopes. The root, the part for which the plant is used, grows to about 2' long in mature plants and is as thick around as a man's wrist. This root can be eaten like a carrot, and it fortifies those feeling exhausted, hungry, or cold by stimulating the stomach juices and the muscles of the whole body. An extract of the root can be used for combat anemia, weakness of the heart, or an attack of nerves, and it cools fevers.

Felamour

This uncommon plant grows in open, sunny meadows. Only four inches tall, this valuable herb is overlooked by all but the most observant collectors. The plant is characterized by furry, green, oblong leaves; its flowers are small, white, and of no practical use. It is a favorite forage of grazing animals, upon which it has a calming effect.

Humanoids of all kinds, particularly goblins, orcs, and gnolls, smoke the dried and cured leaves. The same calming effect is produced for them as in animals, in addition to a slight hallucinatory effect. Felamour, known as solnipha to the elves, is smoked by elves for the same reasons savitum (common pipeweed) is smoked by humans, being a mild stimulant.

Section 2

WISEWIT'S NOTES

For further information about Biurndon's plant resources, Suret's translation of the elvish work *Dath Iana a Posia Benatith* examines many of the flowers and herbs known to the elvish race, some of which are found in Biurndon. Arbor's work *Native Trees* looks at the twenty-four species of tree found in Biurndon, while Burghley's work, "A Treatise on Herbs of Biurndon," examines forty-six common and uncommon plants of Biurndon. Unfortunately, Burghley's manuscript is sadly outdated, particularly in terms of the herbs' rate of occurrence in Biurndon in present times.

Sticktree

Experimental-quality sticktree resin can be bought for 2 sp/oz. from apothecaries in an area where the tree is found. The price increases as the distance from the source of the resin increases. Mercantile-quality resin is less refined and sells for 1 ep/lb.

When exposed to the air, the aromatic resin acts as an attractant for many species of animal (humans included; otherwise it would not be a perfume). Many insect species, including the dangerous volheller [see below], are greatly attracted to the scent. Other creatures such as bears, deer, tren [see below], and stirges find the resin irresistible. For this reason, it is commonly used by trappers to bait their lines. Some sages hypothesize that the resin is the sole source of an essential nutrient for the animals.

Rivertree

The rivertree is never found in swamps or stagnant pools because it requires a source of highly oxygenated water. Some accounts seem to credit this tree with some sentience or awareness of its surroundings; sages suggest that the highly oxygenated water is required for the heightened senses of the sentient trees to function efficiently. The sentient specimens are suggested to have individual personalities, both good and evil. Stories and legends are told of lost travelers being directed by rivertrees, while remnants of clothing and bones found encased in the wood of rivertrees indicates a darker fate for some.

Papertree

This is regularly used by the Guardians of Biurndon as parchment for inscribing messages and secret symbols within the forest.

Medicinetree

The berries are poisonous while raw, but simple boiling denatures the toxin. The berries are collected by natives, who stew them with other berries and roots to make a potent alcoholic beverage. This drink is sold in some taverns as "Biurndon Firebrew." It bears no resemblance to the dwarvish drink of the same name.

Redtree

The redtree is common in mixed deciduous forests. In mixed coniferous forests, it tends to be smaller in size, averaging 40' in height. The redtree prefers rich, humusladen soils rather than the drier, sandy soils of the uplands. It can, therefore, be used as a terrain identifier. The first settlers of Biurndon (Imperial Realm emigrants) used this tree as a marker of the most fertile soils for agriculture.

Natertree

The church members have copied directly out of Arbor's book for their description of the tree. It is obvious that the writer has never seen this tree in the wild, as the natertree was virtually eliminated in years past by overharvesting. Wach Steppet, the third earl of Biurndon, issued dozens of harvest licenses for the sum of 200 gp each. For a period of five years thereafter, Eastwood (Kliatoth's earlier name) was a center of bow manufacture rivalling the best bowyers of Drolland. Many of the bowyers currently working in Kliatoth are descendants of Drolland bowyers attracted by the lure of naterwood.

Sages have long pondered over the natertree's minimal requirement for sunlight. It is considered possible that the natertree is not native to this world and originates from a land with a much dimmer sun. This raises many questions, and sages have debated this point for decades without reaching a satisfactory conclusion.

Lenthal

I would be most interested in learning how the church author uncovered the thieves' and card cheats' trick. It is now fairly common knowledge that the presence of a leaf in the mouth turns the tongue a deep red as the leaf draws blood to the surface, but a few uneducated country folk are tricked out of their earnings at the fairs every year by this method.

As a point of interest, I discovered that some barbaric states use this plant as a method of torture, to slowly dehydrate the victim.

I should further point out that this plant poses no danger to a healthy person. Tales of casual contact with a single leaf sucking



the life's blood out of a person are totally untrue. Leaves cannot draw the blood through the skin. Thus, the aforementioned card cheats are safe from dehydration because the leaf draws liquid from the beverage, not from their tongue. The leaf, being inanimate, also tends to draw the blood, but the skin is an effective barrier, so the blood merely remains at the surface of the skin.

Burghley has determined that each leaf has the capacity to hold about one-quarter pint (125 ml) of liquid, which is subsequently exuded into the atmosphere over a time of one hour.

Graveolens

The church author has quoted directly from Burghley's work, presumably because of his own unfamiliarity with the plant. It should be noted that although graveolens is a disinfectant, it is not effective against poison.

Boneset

What the author is attempting to say is that this plant grows poorly in cultivated areas such as gardens. Burghley's work with this plant seems to indicate that certain soil parameters are not met when the plant is grown in a Biurndon garden. For lack of evidence to the contrary, the church's proposal of divine protection by the goddess Flora is as good a reason as any for its poor cultivation.

To test the church's hypothesis of healers' abilities, I surveyed the healers and apothecaries of Kliatoth. Two healers of the thirty I questioned had boneset flowers. The elixir sold for 100 gp per 1-oz. vial. It is obvious that the healers who have this herb in stock think they are competent. Second-rate (shady?) apothecaries often pass off flowers not collected on a moonless night as the more expensive item.

Redoil

The oil does not appear red when collected, and must be processed before it can be used. The specific steps of producing the processed oil are trade secrets of the Brotherhood of Healers. Once purchased the processed oil can be kept for up to two years in an airtight container.

Angelica

The church has included this herb in its document because of its significance to their religion. Other than being a pretty flower, it has no practical importance.

Blue tonic

The church fails to point out that no food must be eaten for one hour after eating the root; otherwise, wracking pains in the stomach are caused. Personal experience enables me to communicate this fact to you.

Felamour

Although this has little bearing on events here in Biurndon, I was interested to learn that warhorse riders of the south often mix some felamour in their steeds' food before battle, so that the horses will be calmer during fighting. Acquaintances of mine have smoked this herb (in the spirit of experimentation) and have reported that in some cases bizarre hallucinations have been experienced.

Section 3

DM's notes: New creatures

VOLHELLER

FREQUENCY: Uncommon NO. APPEARING: 1-100 ARMOR CLASS: 5 flying, 9 stationary MOVE: 3"/15" HIT DICE: 1 hp % IN LAIR: Nil TREASURE TYPE: Nil NO. OF ATTACKS: 1 DAMAGE/ATTACK: 1 hp SPECIAL ATTACKS: Disease SPECIAL DEFENSES: Nil MAGIC RESISTANCE: Standard INTELLIGENCE: Non-ALIGNMENT: Neutral SIZE: S (1-6 inches long) PSIONIC ABILITY: Nil

Volhellers are small, winged, biting insects belonging to the louse family. The insect breeds in moist humus in forests and pools of stagnant water in swamps during the spring and summer months. Although no more than a nuisance singly, volhellers can be dangerous when they swarm in large numbers during the breeding season. Hundreds of volhellers congregate to form an inverted, funnel-shaped swarm that hovers above the ground. Breeding swarms last for several days, and the droning of the insects' wings can be heard up to 200 yards away The insects burrow into the ground before the first frost to pass the winter season.

Volhellers attack by buzzing around the victim's head, eventually alighting on an unprotected patch of skin. Their jaws are strong enough to penetrate light cloth, but are unable to pierce even the lightest armor; allow them to attack only AC 9 and AC 10 targets. Typical attack sites are the backs of arms and legs, behind the ears, and the back of the neck. The bite of the volheller is painful (causing 1 hp damage) and there is a 2% chance (non-cumulative) per bite of contracting a disease (*DMG*, pg. 14).

Volhellers are preyed upon by birds, giant toads, snakes, and bats; few survive their first season. Others fail to burrow below the frost line and are killed during the winter. The largest volheller recorded had a wingspan of six inches and a body length of four inches. This specimen was more than ten years old.

TREN

FREQUENCY: Common NO. APPEARING: 1-12 ARMOR CLASS: 7 MOVE: 24" HIT DICE: ½ (1-4 hp) % IN LAIR: Nil TREASURE TYPE: Nil NO. OF ATTACKS: 1 DAMAGE/ATTACK: 1-4 (kick) SPECIAL ATTACKS: Nil SPECIAL DEFENSES: Surprised on a 1 only MAGIC RESISTANCE: Standard INTELLIGENCE: Animal ALIGNMENT: Neutral SIZE: S PSIONIC ABILITY: Nil

Tren are small, timid herbivores that are extremely adaptable and prolific. Adult tren stand about eighteen inches high at the shoulder and weigh about fifty pounds. Tren have a smallish head with long ears and eyes set to the side of the head. The long legs are slender but well-muscled, and permit the animal to leap 10' straight up. Tren are difficult to surprise because of their acute hearing and flighty nature. A white flash of the underside of the tail and a rustle of brush are usually the only signs that a group of tren has been nearby. Their large grinding molars make short work of the trees, shrubs, and tough grasses they consume. A tren can only eat one pound of vegetation per day, but this seems to be enough to sustain the animal.

A mature female can give birth to one litter of six to ten live young once per year. The young grow rapidly, achieving sexual maturity at two months of age and full size at four months, assuming they survive that long. Tren can be found in a range of habitats from tropical rain forests to subarctic tundra to arid grasslands and semi-desert. The tropical tren are the largest strain, with individuals occasionally exceeding seventyfive pounds in weight.

Tren are the main food source for many carnivorous and omnivorous animals. In many habitats, they are the primary food source for the local humanoid population, particularly orcs and goblins.

Although nervous and flighty, tren are remarkably stupid animals and are often tricked by more intelligent predators. A single brush-covered pit trap on a run continues to capture tren as long as there are tren in the area.

RIVER CROCODILE

A river crocodile has the same statistics as a normal crocodile. This variety of crocodile has adapted its metabolism to a freshwater environment (like some species of landlocked trout). In Biurndon, the river crocodile is rare.

RIVERTREE

There is a 2% chance that any rivertree encountered is sentient. Consider the sentient rivertree to be a 8 HD treant with the following modifications:

1. The intelligence of a sentient rivertree is average. Rivertrees tend to be more practically oriented, judging situations in terms of immediate personal benefits. They have no use for treasure or money.

2. Fire does +2 damage to a rivertree instead of +4, because of the tree's proximity to water.

DM's notes: Plant effects

Medicinetree

In raw form, the berry of the medicinetree acts as a mild poison, causing 2-12 points of damage and leaving the victim with gastric distress (-1 to hit in combat) for 1-4 hours after consumption. Save vs. poison to halve damage and duration.

If a quantity of berries is boiled in an equal amount of water, the resulting liquid acts as an intoxicant just like any fermented alcoholic beverage.

Mashing the leaves and straining hot water through them produces a weak tea that acts as a curative, healing 1 hp of damage per pint consumed.

By a special process known only to healers, medicinetree berries can be brewed as an elixir that provides the drinker with +1 to strength, intelligence, and wisdom for 1-4 hours. It also gives +1 to saving throws vs. mind-control spells such as *charms, fear* and *command* during that time, and provides an immediate saving throw if the consumer is currently affected by a mindcontrol spell.

Lenthal

In raw form, one lenthal leaf can absorb a quarter-pint of liquid. It must be in direct contact with the liquid; any barrier, even a porous one, prevents absorption.

Graveolens

The oil extracted from a graveolens plant provides a saving throw against contraction of lycanthropy, similar to the benefit bestowed by belladonna. If at least one ounce of the oil is consumed by a humanoid creature within one hour after being bitten by a lycanthrope, the consumer is granted a saving throw vs. poison at +2 to avoid the disease. The oil's bitter taste and burning aftertaste cause 1-3 points of damage (no save allowed). As a beneficial side effect, whether or not the consumer contracts lycanthropy, the oil allows a modifier of 5% to the character's chance of contracting any other disease (DMG pg. 13) for one week afterward.

Boneset

An elixir concocted from boneset flowers collected on a moonless night will cure 3-18 points of damage when consumed. In addition, the imbiber experiences such an intense sensation of well-being that he feels and acts invincible, gaining a +4 bonus on any saving throws vs. *fear* spells or similar magic for the following day. An elixir made from flowers collected at any other time only cures 1-4 points of damage and does not bestow the accompanying feeling of well-being.

The leaves of the boneset plant can be used to brew a tea that has a 50% chance of healing 1 point of damage per pint of tea consumed.

Redoil

The oil extracted from the leaves of this plant will heal 1 point of damage from external wounds per ounce of oil applied to the affected area. Rubbing in the oil requires one round per application. As characters may discover, it is not advisable to administer redoil during combat. (While you are healing 1 hit point, the ogre with 18/50 strength is about to hit you at +4 with his spiked club.)

Blue tonic

If consumed in raw form, the root from this plant contains sufficient nutrients to supply the human body with energy for 12 hours of strenuous activity. Larger and smaller creatures receive proportional energy reserves. No food must be consumed for one hour after eating the root, or intense pain that results will incapacitate any character with a constitution of less than 16 for a period of 1-4 hours. During this time, an affected character can only move under his own power at a 3" rate and cannot attack, cast spells, or perform any other significant activity. An affected character with a constitution of 16 or higher constitution is -2 "to hit" for 1-4 hours and must take a comparable penalty on all other significant activities (for instance, -10% to the chance of successful performance of a thieving skill, or other penalties as deemed appropriate by the DM).

Felamour

Smoking the dried and cured plant results in the consumer gaining +1 on his strength, but -2 on wisdom and -2 on dexterity for a period of 1-4 hours thereafter. If the smoker is a first-time user, there is a base 10% chance that he may experience bizarre hallucinations (DM's choice as to exact nature). For every use after the first time, this base chance is reduced by 1%. This reflects the user's physical adaptation to the substance. This herb does not cause physical addiction. Demi-humans (any PC race except humans) are not affected by this substance in any way.

DM's notes: Miscellany

Processing of redoil

The method of processing redoil is kept



secret by the Brotherhood of Healers, because it is extremely simple to make the healing solution, and the Brotherhood would lose considerable sums of money if it was made public.

Ingredients: 4 oz. redoil, 1 quart distilled water, 6 small pebbles, 3 medicinetree berries, 2 drams shredded redoil berries.

Procedure: 1) Mash berries in 1 pint distilled water. 2) Mix redoil in remaining 1 pint water. 3) Add pebbles to berry solution. 4) Bring berry solution to a boil for 4 minutes. Note: Do not boil redoil solution. This renders the solution useless. 5) Add berry solution to redoil solution; mix thoroughly. 6) Add 2 drams shredded redoil flowers. Cover and let stand 48 hours. 7) Strain and dispense in 1 oz. vials.

ST. AIDAN

The Warder, the Scholar Patron of justice & preservation of written materials ARMOR CLASS: -2 (-5 if in chainmail) MOVE: 20" HIT POINTS: 186 NO. OF ATTACKS: 1 DAMAGE/ATTACK: By weapon type, +7 strength bonus SPECIAL ATTACKS: See below SPECIAL DEFENSES: +1 or better weapon to hit MAGIC RESISTANCE: 75% SIZE: M ALIGNMENT: Lawful good WORSHIPER'S ALIGNMENT: Lawful good, lawful neutral SYMBOL: White stag, angelica flower PLANE: Arcadia CLERIC/DRUID: 20th-level cleric MONK/BARD: 5th-level bard PSIONIC ABILITY: V ATTACK/DEFENSE MODES: All/All S: 19 I: 15 W: 21 D: 18 C: 18 Ch: 18

St. Aidan appears as a young, palecomplexioned man usually portrayed walking aimlessly about with book in hand. An air of gloom hangs about him as if he contemplates some horrible past. He wears *chainmail* +3 under a light green cloak emblazoned with the stag symbol. A white stag (24 hp, average intelligence) is his constant companion. Aidan wields a *mace* +4 which detects lies and alignment, and enables him to read any language (including those of magic).

Although generally mild-mannered, St. Aidan may at times (once per day maximum) become a berserker in combat. These attacks are involuntarily caused by the witnessing of an event which directly contravenes his highly developed sense of fair play, such as the torture of innocent victims or the pillaging of a helpless village. Although he garnered little combat skill in his worldly existence, this matters little when he is in this state, which lasts for one hour (use combat statistics as given above).





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This, the Mutant Manual II, adds another 20 new denizens to the radioactive lands of the GAMMA WORLD® game's postholocaust Earth. Like its predecessor (in DRAGON® issue #98), this is a collection of reader-created creatures that can be added to any GAMMA WORLD game setting to assist, harass, amuse, or eat roving bands of post-atomic survivors.

If the game referee allows, players may use some of these creatures as playercharacter races. However, some may prove to be more useful and playable as NPC or "monster" encounters, particularly the least intelligent or most destructive ones. Referees should use common sense in working out these points.

Throughout the text, meters is abbreviated as m, centimeters as cm, and kilograms as kg.

Ameebies (Shapeless Ones)

NUMBER: 1 MORALE: 1d8 HIT DICE: 8d6 + CN ARMOR: 8 (see below) SIZE: Variable (see below)

LAND SPEED: 2/150/3 (as blob), 8/600/12 (as humanoid)

MS: 1d6 + 2 IN: 1d10 + 8 DX: 2d10 CH: 1d6 CN: 2d10 PS: 2d10 + 5

ATTACKS: Suffocation (see below) ORIGINAL STOCK: Artificially produced microbe (?)

MUTATIONS: *Diminished senses* (D; no senses of hearing, taste, or smell), *new sense* (universal-direction vision), *physical reflection* (variant, vs. cold and blunt weapons), *shapechange* (limited), *regeneration*, *vision defect* (D; severe), and two unique mutations (*poison immunity* and *telepathic immunity*)

HABITAT: Subarctic to temperate forests **DIET:** Any organic matter

DESCRIPTION: Ameebies may be descended from giant microbes produced in genetic-engineering laboratories during the Shadow Years, though little else is known of their origins. An ameebie has two forms. The first is that of an amophous blob, roughly 2-3 m in diameter. The blob is omnivorous and attacks living prey by attempting to stretch out, envelope, and smother the victim. A successful "to hit" roll means the ameebie has extended a pseudopod and successfully covered the victim's face. (Being rather intelligent, the ameebie knows where to aim.) The victim takes 2d6 damage per Action Turn thereafter until either it or the ameebie is slain. Blunt weapons (clubs, maces, etc.) do no damage to the ameebie in this form, as it can reshape itself to absorb the blow's impact.

The ameebie's second form is that of a

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Rick Hall: Purrlions, Rakkons, and Screps

Randy D. Johns: Moklas and Triphants Douglas Lent: Kreel Torrn John M. Maxstadt: Bumbles, Crumbleweeds, Deng Kheshes, Firebugs, Lukalukas, Ribbets, Slippigs, and Vilchneks. Danny Moynihan: Draguns and Gliders Dan Snuffin: Ameebies, Chessex, and Xloes Robert Zellar: Niregs



humanoid being, devoid of facial features, hair, and so forth. This form is about 1.5 m tall, and takes 2 Action Turns without interruption to assume. In this form, the ameebie cannot digest prey, as it is using all of its energy to maintain the humanoid shape. It is not known if ameebies can assume other forms.

Ameebies cannot be affected by cold. They automatically form a hard, rubbery surface when subjected to cold temperatures, and actually gain 1 armor class level for every 10 hit points of cold damage they absorb (even from mutant cold-generating powers). The lowest armor class they can attain is AC 3.

Ameebies are quite intelligent and may join adventuring parties out of curiosity. They see by using thousands of minute eyespots over their bodies. Though severely myopic (missing all objects further than 10 m away), they cannot be surprised within their limited visual range. Ameebies are deaf, but have normal senses of touch. They eat any organic matter, being immune to poisons. Some ameebies have learned to communicate with other beings using very rudimentary sign language. They also regenerate any physical damage they take.

Nothing is known about how ameebies reproduce, though it is guessed that they use budding or fission. Ameebies cannot be contacted by using telepathic powers of any sort. For some reason, they seem to avoid their own kind, and are only encountered singly.

Bumbles (Bee Folk)

NUMBER: 1d6 MORALE: 1d4 + 4 HIT DICE: 9d8 ARMOR: 6 SIZE: 2.5 m long

AIR SPEED: 6/900/18 LAND SPEED: 0/300/6

MS: 1d6 + 4



Chessex (Fear Deer)

NUMBER: 5d10 MORALE: 1d6 HIT DICE: 2d6 ARMOR: 5 SIZE: 70 cm tall at shoulder

LAND SPEED: 14/1000/25

MS: 1d10 **IN:** 1d4 **DX:** 3d6 **CH:** 1d4 CN: 2d8 PS: 2d4

ATTACKS: 1 antler gore for 1d4 damage, plus poison (Intensity Level 9) ORIGINAL STOCK: White-tailed deer MUTATIONS: Absorption (radiation), and *fear generation*

HABITAT: Temperate grasslands and forests

DIET: Grasses and shrubs

DESCRIPTION: The chessex are small, mutated deer that are pale yellow in color. They avoid most encounters by running away or by using their *fear generation* powers on carnivores, who have learned to leave the chessex alone. If cornered or surprised, chessex can attack with their antlers, which are hollow and filled with poisonous fluid that can be injected into antler wounds. This poison causes affected victims to lose 1 strength point per Action

ATTACKS: 1 sting for 1d8 damage, plus poison (Intensity Level 14)

ORIGINAL STOCK: Bumblebee

MUTATIONS: Displacement, energy absorption, energy negation (D), insanity (D, variant), new body parts (vocal articulators), taller, and ultravision

HABITAT: Open, temperate, sunny areas (meadows)

DIET: Pollen and nectar from giant flowers

DESCRIPTION: These giant, mutated bees are only found near gigantic, noncarnivorous flowers (they can generally tell dangerous flowers from safe ones). Dimly intelligent and not unfriendly toward humans and humanoids, they speak human languages in a low, mumbling drone. They are generally peaceable, but rarely (10% of random encounters, or for a specific reason determined by GM) one may become upset for no apparent reason and angrily buzz around or even sting (25% chance if enraged) harmless passers-by. Of course, bumbles also attack creatures that attack them or try to rob their underground nests. They can be recruited or hired with offers of food. Some are occasionally trained as mounts, but their displacement and energy negation mutations discourage this practice.



Turn until a strength of 3 is reached, at which time the victim must sit and rest for as many hours as strength points were lost. At the end of that time, the victim's strength returns to normal.

Chessex are herbivorous and can be found in large herds in the American Midwest. Human and humanoid barbarian tribes find the chessex highly important, as the poison from their antlers can be drained, allowed to thicken for 1d4 days, and made into Intensity Level 8 poison for

use on weapons. This poison causes a strength loss of only 1d4 points. The tough, leathery hides of the chessex are used as armor (equal in all respects to leather armor), and the meat of these mutant deer has proved to be quite tasty. Tribesmen use missile weapons and traps to bring down chessex. Because of their mutations, these creatures cannot be domesticated. Chessex have learned to travel radioactive lands in order to escape hunters.

Crumbleweed (Desert Rollers)

NUMBER: 1 MORALE: Not applicable HIT DICE: Not applicable ARMOR: 10 SIZE: Up to 12 m tall

LAND SPEED: As per wind velocity (up to 80 m per Action Turn)

MS: Not applicable IN: Not applicable DX: Not applicable CH: Not applicable CN: Not applicable PS: Not applicable

ATTACKS: See below ORIGINAL STOCK: Tumble mustard MUTATIONS: *Invisibility* (special), *spore cloud* (variant), and *size increase* HABITAT: Deserts and drylands DIET: Does not eat

DESCRIPTION: The crumbleweed grows from a tiny spore-like seed into a spherical bush as big as a house. Crumbleweed secrete a substance not unlike that which renders a blight invisible. However, this coating is unaffected by water, and it leaves a blurry outline that can be seen at short distances, so that creatures seldom walk into a crumbleweed by accident. This invisibility, coupled with the weed's lack of



a distinctive smell, turns it from what would be a very prominent part of the desert landscape to a fairly obscure species – all the more so since it is poisonous (Intensity Level 16) and totally non-nutritious, and therefore not sought after by any creature.

However, the plant's means of propogation has made it well known to experienced desert travelers. Crumbleweed spends its life attached to the ground by a very thin and fragile stalk, which dries up and breaks readily in a moderate wind once the plant has pollinated itself and borne seed. The wind blows the dead plant along the desert floor while it crumbles into a fine powder of seeds and dry plant fibers. Each irregularity in the ground causes more of the weed to crumble off, until finally it is all gone, having left a trail of seeds which might, under the correct conditions, grow into new crumbleweed.

One "irregularity" which a crumbleweed might roll over and dust with seeds would

Deng Kheshes (Spiny Recluses)

NUMBER: 1d12 per cluster MORALE: See below HIT DICE: 13d4 ARMOR: 4 SIZE: Up to 6 m tall and 35 cm diameter LAND SPEED: Does not move (horizontally) MS: 1d8 + 4 IN: 1 DX: 2d6 CH: 1 CN: 1d8 + 10 PS: 1d8 + 11 ATTACKS: See below **ORIGINAL STOCK:** Giant saguaro cactus MUTATIONS: Chemical sense, mobility (variant), sonic blast, and thorns/spikes (variant) HABITAT: North American deserts **DIET: Soil nutrients** DESCRIPTION: These odd cacti resemble ordinary saguaro, except that they are never branched, and always form a single, straight column. If a deng khesh senses any approaching creature or machine within 10 m (it can be surprised only by creatures with no Tech Level II or III gear), it suddenly drops down into a vertical, cylindrical burrow in the sand beneath it, so that its top is 1 m below the surface. If it is surprised, it submerges after any kind of effective attack against it.

In either case, it will stay underground until the intruders go away. If the intruders are still there ten Action Turns later, or if they attack the deng khesh in its burrow, it emits a *sonic blast* every Action Turn until they go away.

every Action Turn until they go away. Deng kheshes are attacked primarily as sources of water; a deng khesh yields, when tapped, one quart of water per 10 be a living creature or a party traveling on the desert. The dust is an irritant, affecting creatures as Intensity Level 14 poison, causing sneezing and choking for one Action Turn for every die of damage that would be done by normal poison (treat "D" results as 4 + Turns of choking, going down the matrix and adding one for every D). Victims are totally incapacitated until they stop choking, but they suffer no further ill effects.

Characters surprised by a crumbleweed encounter are always rolled over and all take full damage from the dust. If the party is not surprised (normal chances on the dice), they see the weed's blurry outline just in time to try to jump aside, which requires a special DX check. The GM should roll a d6 to determine how much of the crumbleweed has already crumbled away (a 1 indicating full, 12-m size, a 6 indicating little larger than mansize (2m)) and multiply each character's DX by the result for the check. To have any chance of evading an oncoming crumbleweed, characters must jump aside as soon as they see it – *i.e.*, players must not hesitate in announcing their PCs' actions. Small crumbleweeds are, of course, easier to evade than large ones.

Even the largest crumbleweed won't crush any characters it rolls over, since the weight (a maximum of 250 kg) is distributed over such a large area. Most attacks have no effect on a rolling crumbleweed – which is already dead, after all. Physical attacks with weapons or body parts doubles the duration of the sneezing and choking. Firey attacks of any sort cause the crumbleweed to instantly disintegrate into blazing cinders, which vanish into ash within seconds – doing no damage to anyone.

Heightened smell won't detect an oncoming crumbleweed, while *heightened hear*ing picks up a faint, wispy crunching sound that does not sound dangerous to anyone who has not had experience with crumbleweed.

Draguns (Sea Gators)

NUMBER: 1d4 - 2 (minimum of *I*) MORALE: 2d4 + 2 HIT DICE: 7d12 + 7 ARMOR: 2 SIZE: 15 m long WATER SPEED: 12/1000/32 MS: 2d4 - 1 IN: 1d4 DX: 1d4 CH: 1d4 CN: 5d4 + 1 PS: 3d20 + 30

ATTACKS: 1 bite for 10d4 + 2 damage and swallow (see below); 1 ram for 4d10 damage (in water); or, by "gun" (see below) ORIGINAL STOCK: American alligator MUTATIONS: *Gills, new body part* (projectile-firing digestive system), *taller*, and *water dependency*

HABITAT: Caribbean sea and Atlantic Ocean

DIET: All animal life

DESCRIPTION: Draguns still resemble their ancestral alligator forms, though they are much larger in size and cannot leave the water. They establish territorial areas across sea beds, defending them fiercely (even against passing ships and submarines). Being particularly stupid and rather clumsy, draguns may be slowed and stopped by heavy, steel-cable nets dropped across their paths. They seem to like basking on the surface of the ocean during sunny days, and are often encountered during these times.

Draguns possess a rudimentary form of communication consisting of bellows, croaks, and grunts, all of which are uttered while the dragun is floating on the surface. Mutant reptiles may learn to imitate these sounds with some success



hit points. Any body-to-body physical attack (claw, bite, punch, tailslap, etc.) that hits a deng khesh also does 2d4 damage to the attacker because of the cactus spines. (50% chance of getting a vocalization correct), and this technique, combined with an amplifier, has been used to attract or drive away these beasts.

Draguns have three forms of attack. They prefer to bite and swallow prey that is man-sized or smaller, there being a 15% chance per bite that such prey is gulped down whole. A swallowed character takes 2d6 damage per Action Turn from slow suffocation and drowning on water the dragun swallowed, plus an amount of damage equal to his armor class from digestive acids. The victim can only attack with a daggers, claws, or teeth against the dragun's insides (AC 9). The dragun must

Firebugs (The Black Plague)

NUMBER: 2d8 MORALE: 1d4 + 4 HIT DICE: 12d6 ARMOR: 6 SIZE: 3 m long

LAND SPEED: 0/600/12 HOPPING SPEED: 0/3250/250

MS: 1d10 + 6 IN: 1d8 + 4 DX: 3d6 CH: 1d4 + 4 CN: 1d12 + 6 PS: 1d20 + 10

ATTACKS: 1 bite for 3d6 damage; or, 1 squirt for 2d6 damage, plus 2d6 damage per Action Turn

ORIGINAL STOCK: Black hearth cricket **MUTATIONS:** *Absorption* (heat), *force field generation, heat generation* (variant), *heightened vision, taller,* and a unique mutation *(incendiary spittle)* **HABITAT:** Mostly cultivated fields, as well

as meadows and grasslands DIET: Grasses and grains

DESCRIPTION: These vicious and destructive pests delight in ravaging fields cultivated by humans and humanoids. They attack anyone or anything that tries to interfere with them. They can bite, but more frequently they spit a glob of highly

be slain in order for a victim to be removed. Once this is done, 100 hit points damage must be inflicted on the (dead) dragun's midsection, either by persons outside the dragun or by a swallowed victim, to free the captive. Note that a dead dragun floats easily and may be towed to land.

Draguns also like to ram ships and other creatures that are floating on the surface of the water, using their snouts as battering rams. A vessel of sailboat size or smaller is 90% likely to capsize if rammed; a ship the size of a sailed frigate would have a 5% chance of rolling over.

Finally, draguns have a new body part: a

gizzard that collects large stones and can expel them forcefully out the dragun's open mouth. A fired stone weighs 4d4 lbs., has a 40-m range, and does 6d6 to whatever it strikes. Draguns only fire stones when floating, not underwater. Because of this effect, and because of the blasting sound made when the stone is launched, the original name of "dragon" was modified to its current form. A dragun has ld4 such stones which may be fired at any particular time.

If a dragun senses any sort of poison gas on the water's surface, it immediately submerges and flees the area.



volatile, Greek-fire-like liquid that ignites on contact with open air. It hits any unobstructed target within 8 m and burns for 2d6 damage (unless the target is immune to heat and fire). It continues to burn for 5 Action Turns, doing 2d6 damage per turn, unless it is smothered out. To do this, the creature must roll on the ground for a full Action Turn; water (excepting full immersion) or *cyrokinesis* won't put out this fire. Firebugs can spit this liquid once every four Action Turns. The bodies of firebugs are also very hot, and any creature touching them takes 1d4 damage — the extent of their *heat generation* powers.

Most communities plagued by firebugs resign themselves to the loss of part of their grain. But firebugs are destructive by inclination as well as by ecological niche. They sometimes burn a field or attack a harmless passer-by out of sheer viciousness. They are also extraordinarily vindictive and typically respond to the loss of a fight by burning down the nearest village. Firebugs are also arrogant and seldom retreat from a fight. When they do flee, they are nearly impossible to catch, even though flightless, as they put up their *force fields* and hop 50 m in one jump, 5 times per Action Turn (ten times at fast speed).

Firebugs are glossy black in color, with orange-red eyes like burning coals.

Gliders (Zap Lizards)

NUMBER: 1d4 MORALE: 2d4 HIT DICE: 5d8 ARMOR: 4 SIZE: 2 m long

AIR SPEED: 24/2000/60 LAND SPEED: 10/650/15

MS: 1d4 IN: 1d4 DX: 2d4 + 13 CH: 1d4 CN: 2d6 PS: 2d6 + 10

ATTACKS: 1 bite for 3d4 damage; and, 2 rear claws for 1d6 damage each ORIGINAL STOCK: Komodo dragon MUTATIONS: *Chameleon powers, heightened dexterity, radiation eyes* (variant), and *wings* (variant, limited) HABITAT: Southeast Asian jungles DIET: Small animals of all types

DESCRIPTION: Gliders are large lizards which possess extraordinary powers of concealment. They are carnivorous in nature, and their forelegs have developed into broad wings, which they use to swoop down on their prey. Gliders cannot truly fly, but can descend upon a victim in a silent glide that adds a +2 bonus to opponent's chances of being surprised (even with *heightened hearing*). This glide can be extended for twice as far a distance as the glider's altitude at the time it takes off; e.g., a glider starting at a height of 20 m can glide down to prey on the ground 40 m away.

Kreel Torrn (Leapers)

NUMBER: 1d6 MORALE: 1d4 + 4 HIT DICE: 3d10 A R M O R: 6 SIZE: 1.2 m tall

LAND SPEED: 12/600/18, plus special

MS: 1d6 + 9 IN: 1d6 + 9 DX: 1d8 + 10 CH: 2d4 CN: 1d8 + 7 PS: 1d6 + 6

ATTACKS: As per weapon type ORIGINAL STOCK: Common meadow grasshopper MUTATIONS: Chameleon powers, empathy, taller, modified body parts (forelimbs), and ultra vision

HABITAT: Grasslands and forests

DIET: Grasses and leaves

DESCRIPTION: Kreel torrn are large, bipedal grasshopper-folk with manipulative forelimbs. Though they have lost the



Gliders climb extremely well using their back legs and winged forearms, each of which has a free claw useful only for hooking into tree bark to hold position. Gliders may be found at any altitude to which trees can grow. They avoid sailing out over bodies of water, as they cannot swim.

Though of animal-like intelligence, gliders rarely bother creatures which



possess considerable amounts of Tech II or

Tech III equipment, perhaps because they

dislike the smell produced by such items.

Gliders often can be caught when young

flight capability of their ancestors, they still retain their leaping ability. Kreel torrn may leap up to 30 m in any direction every other Action Turn, for as many leaps as they have CN points. Afterwards, they must rest 10 minutes for each leap made before they can leap again. A kreel torrn in mid-leap is -3 to hit and be hit.

Kreel torrn are semi-nomadic beings and employ Tech Level I weapons and equipment. They often supplement their wealth by ambushing unwary travelers. When lying in ambush, kreel torrn use *chameleon powers* to conceal themselves until their quarry passes by. They then leap out of cover, attempting to surround their prey and overwhelm any opposition, attacking to kill only if resistance proves to be too great.

A favorite tactic of the kreel torrn is to hide completely out of sightand use their *empathy* to follow the progress of their target(s). A similar ploy is for the kreel torrn to wait in complete darkness, using *ultravision* to find their marks.

Kreel torrn are opportunists and flee if their position becomes untenable. They can sometimes be hired so long as the work is not too hard and the pay is good.



Lukalukas (Gobblers)

NUMBER: 1d20 MORALE: 1d4 HIT DICE: 5d4 ARMOR: 10 (-1 to be hit) SIZE: Up to 1 m tall

AIR SPEED: 0/300/12 LAND SPEED: 10/1350/27

MS: 1d4 IN: 1d4 DX: 2d6 CH: 1d4 CN: 2d6 PS: 1d4 + 2

ATTACKS: 1 peck for 1d4 damage ORIGINAL STOCK: Domesticated turkey MUTATIONS: *Gas generation* (Intensity Level 12; blindness for 1d4 hours), and a unique mutation (*disease immunity*) HABITAT: Temperate forests and scrublands

DIET: Grains and plants, particularly those with the *bacterial symbiosis* mutation

DESCRIPTION: These terrestrial birds are heavy and stupid, but fairly fast on their feet and able to fly clumsily for short distances. They have acute hearing and are only surprised on a 1. When encountered by a known predator, they scatter, each leaving behind a cloud of opaque gas 9 m across which blind any character or creature that comes in contact with it. Each bird can do this only once every 4 hours, and it is indicative of their stupidity

Moklas (Baby Bronts/ Sea Devils)

Statistics to the left of the heavy slash are for the unmutated, purestrain form; statistics to the right are for the mutant marine mokla.

NUMBER: 1d4/1d4 - 2 (minimum of 1) MORALE: 2d4 + 2 HIT DICE: 17d12/15d12 ARMOR: 1 SIZE: 12 m long

LAND SPEED: 24/1800/72 (includes wading) /0/300/6 WATER SPEED: 0/24/1800/36

MS: 1d4/2d4 IN: 1d4 DX: 1d10 + 8 CH: 1d4 CN: 1d10 + 12/1d10 + 10 PS: 4d20 + 70/4d20 + 55

ATTACKS: 1 bite for 2d6 damage; 1 tail slap for 5d6 damage; or, 1 foot stomp for 8d10 damage /1 bite for 5d8 damage; 2 tentacle constrictions for 3d6 damage; or, 1 tail slap for 5d6 damage

ORIGINAL STOCK: Apatosaurus (brontosaurus)



that they all release their gas at once whenever they are encountered.

If a creature or character is not a known predator and approaches lukalukas in a peaceable, reassuring manner, roll a reaction check — they scatter on any result of 9 or less, and must check morale on any roll between 10 and 17.

Once their gas is used, lukalukas are virtually defenseless when caught. However, due to their habit of eating plants with *bacterial symbiosis* (which does not harm or leave any symptomatic marks on the bird), they should be thoroughly cooked before eating. If not, there is a 60% chance that any lukaluka is carrying a random plant-carried disease.

MUTATIONS: None / Hands of power (electrical, improved), new body parts (flippers, carnivorous digestive system, tentacles on back), physical reflection (electrical), and radar/sonar HABITAT: Warm lakes and rivers / Warm seas and large lakes DIET: Plants of all types / Fish and marine animals, including sea-going humanoids

DESCRIPTION: During the twentieth century, the world heard tales of a large creature living within the unexplored regions of the Congo. The beast was said to be larger than an elephant, with a long, serpentine neck and small head. The natives called the creature *mokelembembe*, and scientists were able to film it in 1984. However, the beast was not proven to exist until a live one was captured in 1989. These creatures were soon bred and cloned in captivity by the Ancients. In time, they were as common a sight at the zoo as were elephants themselves.

After the Social Wars, some of these creatures escaped from captivity to live in warm areas of the wilderness. At present, there are two species of this creature: one which has been mutated by the war, and one which has remained virtually unchanged over millenia. The "purestrain" variety is described first.

Mokele-mbembe, better known as the mokla, or baby bront, is a modern-day descendant of the brontosaurus, which was believed to have become extinct over 100 million years ago. The mokla weighs 9-15 tons and is a brownish-gray in color. Like many mutated reptiles, and just as scientists had suspected of dinosaurs for many years, moklas are warm-blooded. The mokla spends most of its time in the water, only coming to shore in the early morning and late evening to feed on plant life there. Otherwise, it eats coarse lake vegetation of many sorts.

Moklas are very territorial and attack most creatures and boats which get too close to them. Any creatures that are 3 m in height or less which are stepped on by a mokla must (in addition to taking damage) make a CN x 3 check or fall unconscious for 1d4 hours, due to the beast's weight. Creatures which come too near to a wad-



ing mokla may be knocked aside by the charging creature and probably nipped with its flat (but painfully powerful) teeth. Moklas are not very bright.

The mutated mokla has flippers in place of legs, and it strongly resembles the prehistoric plesiosaur. This flesh-eating creature feeds upon fish and small land-dwelling animals - like humans, humanoids, and so forth. The sea devil (as it is known) has been known to attack ships in order to devour the crew. It fires electrical bolts from its back tentacles after arising from the water before a vessel, attempting to sink the ship and gather up crewmen to eat. The back tentacles are highly flexible and can squeeze prey 3 m or smaller, doing 3d6 damage every Action Turn without requiring a roll "to hit" after the first successful hit. The electrical hands of power mutation can be used up to 4 times per day. Sea devils are completely immune to electrical effects. If a sea devil fires its hands of power at the surface of the sea or underwater, the damage done is reduced by half (round fractions up), but the electrical bolt is diffused over a spherical or hemispherical area with a radius of 3 m.

During the summer mating season, both species of moklas come ashore to lay their eggs in huge clutches, which are covered over with sand and left alone. The eggs hatch within a month, and the young moklas then stay with the nearest local herd of their own species. Moklas reach adulthood after a period of 10-15 years, and have a lifespan of over 500 years.

Niregs (Killer Turtles)

NUMBER: 1d4 MORALE: 1d6 + 1 HIT DICE: 2d10 + 50 ARMOR: 2 SIZE: 3 m wide, 1 m tall shell

LAND SPEED: 5/300/15

MS: 1d10 + 4 * IN: 1d8 + 5 * DX: 3d6 CH: 3d4 * CN: 1d10 + 10 PS: 1d12 + 8

^ – Roll separately for each head.

ATTACKS: 2 bites for 2d6 + 6 damage each; and, 2 clawed feet for 1d6 each ORIGINAL STOCK: Snapping turtle MUTATIONS: *Dual brain, mental shield* (in each brain), *military genius* (left brain only), *multiple body parts* (two heads, eight legs), *sonic blast* (improved; both heads), and *telepathy* (right brain only) HABITAT: Temperate swamps and forests DIET: Small animals and insects

DESCRIPTION: Descended from the snapping turtle, this two-headed creature



is certainly one of the strangest mounts that can be found. A nireg is basically friendly in nature, though its left head tends to be aggressive in attitude and its right head prefers to solve things without a fight. Since the right head does all of the "talking" with other creatures, the leftsided head can be rather surly if ignored.

Niregs are dangerous in combat. Aside from the bonuses that the left head gets in combat, a nireg can generate *sonic blasts* simultaneously from its two mouths. These blasts can be focused on a single target within range, and the two blasts combine to produce extra damage equal to a third *sonic blast's* effects. The two forefeet are clawed and can be used in fights as well. If an opponent is bitten by one of the huge, parrotlike beaks (which always strike first), then claw attacks against the bitten person are made at +4 "to hit" on the die roll.

A nireg (if willing) can carry up to 200 kg at full speed over any terrain but the rockiest, and can haul up to 400 kg at half speed over smooth ground or roads. Niregs typically have a single name despite having two separate personalities.

Purrlions (Heer Kitties)

NUMBER: 2d6 MORALE: 1dlo (1d6 vs. podogs) HIT DICE: 5d12 ARMOR: 4 SIZE: 3 m long, 1 m high at shoulder LAND SPEED: 20/1000/36 MS: 1dl2 + 2 IN: 1d6 DX: 2d6 + 4 CH: 1d4 CN: 1d10 + 6 PS: 1dz0 + 20



ATTACKS: 1 bite for 2d8 damage; and, 2 claws for 2d6 each

ORIGINAL STOCK: Domestic house cat

MUTATIONS: Heightened balance, heightened vision (no night penalities), and taller

HABITAT: Temperate forests, grasslands, and hills

DIET: Small animals, especially squeekers

DESCRIPTION: Purrlions are among the largest mutant felines in North America, reaching 3.5 m high at the shoulder and 9 m long (excluding the 3 m tail). Possessing a beautiful tiger-striping over a goldenbrown coat, purrlions are fairly easy to domesticate as guards, and some communities have even used them as steeds, though they are not the best. A purrlion comfortably carries up to 230 kg of material, including riders, at full speed, but it won't often carry any more than that. Purrlions have a loping gait that is very uncomfortable for riders, particularly if the purrlions are moving quickly.

Purrlions are able to climb large trees and steep slopes using their claws. One may even do this with a rider on its back, though the rider had better be securely fastened to his seat. Purrlions move very softly despite their size, causing opponents to be surprised on a roll of 1-4.

Like their ancestors, purritons have an affinity for certain smelly herbs and flowers, particularly catnip. Certain forms of mutant catnip cause purritons to behave in a dazed and irrational manner, though the purritons usually cause no injury to anyone while under the effects of this substance.

Rakkons (Brown Runners)

NUMBER: 1d4 MORALE: 1d8 HIT DICE: 8d12 ARMOR: 4 SIZE: 1.5 m at shoulder LAND SPEED: 16/900/24

MS: 1d8 + 2 IN: 1d4 DX: 1d8 + 5 CH: 1d4 CN: 1d8 + 10 PS: 1d20 + 20

ATTACKS: 1 bite for 1d6 damage; and, 2 claws for 1d4 damage each ORIGINAL STOCK: Raccoon MUTATIONS: *Empathy, heightened vision, and photosynthetic skin* (improved) HABITAT: Temperate forests and grasslands DIET: Fruits, nuts, grasses, and large insects

DESCRIPTION: The bandit-masked rakkons may be found in the mountainous regions of North America. They resemble bears, though they are not aggressive and do not eat meat. It is rumored that some humanoid tribes use them as steeds. Rakkons stand 1.5 m at the shoulder, but may stand up on their rear legs to a height of 3.5 m. They have short, bushy tails and are silvery-gray in color.

The fur of the rakkon is actually photosynthetic, manufacturing nutrients as per the regular mutation. However, the fur's thickness serves as protection, so that the rakkon does not suffer extra damage if



attacked by cold-using weapons or mutations. Rakkons remain continuously active throughout the day and night, and do not appear to need sleep, though they have to rest from great exertion like any other animal. Dabbers (brown beggars) do not care for rakkons and never employ them as pets or steeds. Rakkons otherwise enjoy some popularity as pets among those who like big, shaggy, inoffensive creatures. Trained rakkons are excellent with children.

Ribbets (Flying Frogs)

NUMBER: 2d8 MORALE: 1d4 + 1 HIT DICE: 2d4 ARMOR: 10 (-8 to be hit) SIZE: 5 cm long

AIR SPEED: 0/600/12

LAND SPEED: 2/200/5 MS: 1d10 + 11 IN: 1d10 + 8 DX: 3d6 CH: 3d4 CN: 1d4 + 3 PS: 1d4

ATTACKS: See below

ORIGINAL STOCK: Barking treefrog MUTATIONS: Devolution, displacement, levitation, magnetic control, telepathy, time manipulation (variant), wings (variant, limited), and a unique mutation (memory erasure) HABITAT: Treetops in moist forests and jungles, and on pond banks

Jangies, and on pond band

DIET: Small insects and invertebrates



DESCRIPTION: The frequent companions of lils, ribbets are small, green, splayfooted frogs with considerable mental powers and a lively sense of humor. They seldom attack a creature with injury in mind, unless seriously threatened or harmed themselves, but they often play pranks, particularly on a low reaction roll. Their favorite tricks involve *levitation*, *magnetic control*, *time manipulation* (which does not cost them hit points, but is limited to two days maximum and can be split down to five minutes), and *memory erasure*, a mental attack which, if successful, erases 1dl2 hours of accumulated knowledge in one creature. The range of this attack is 30 m, and it can be made once per five Action Turns. Multiple successful attacks are cumulative in effect.

Ribbets are almost always encountered in treetops, about 15 m above the ground. They are in range for most of their attacks, but they are difficult to spot at that distance and angle, since they sit on green leaves larger than themselves. It takes a check vs. IN x 1 to spot them well enough for any kind of "to hit" roll. Ribbets are not unfriendly and can be hired, recruited, or negotiated with. However, they are capricious, and their material needs and wants are few, so they can be difficult to persuade.

Ribbets glide rather than fly, using their large, webbed feet and the skin flaps on their sides, behind their forelegs. They cannot take off from ground level, and generally glide from tree to tree. They can move 1 m horizontally for every 1 m altitude with which they start. NUMBER: 1d12 MORALE: 1d6 + 4 HIT RICE: 10d4 ARMOR: 5 SIZE: 20 cm long

LAND SPEED: 6/900/72 CLIMBING SPEED: 36/1800/36

MS: 1d10 + 11 IN: 1d10 + 11 DX: 1d10 + 11 CH: 2d8 CN: 5d4 PS: 1d4

ATTACKS: 1 bite for 1d4 damage **ORIGINAL STOCK:** American alligator MUTATIONS: Anti-life leech, density control (others), heightened balance, shorter, sound imitation, and a unique mutation (friendship generation) HABITAT: Temperate forests DIET: Nuts, fruits, leaves

DESCRIPTION: A small, tree-dwelling variety of mutant alligator, screps are bright red in color and easily visible among tree foliage. Despite their small size, screps are highly intelligent and possess manipulative hands on their forelimbs as well as on their rear legs. Their tails are almost as prehensile as those of spider monkeys.

These social and friendly creatures live in well-ordered communities among high treetops. They contruct nests from twigs, leaves, and stems, and use rudimentary tools to hollow out holes in trees for shelter. Some screps probably live out their entire 200-year lifespans without ever touching the ground. Some screps, being curious and fascinated by technology, carry small Tech II and Tech III devices and weapons, though this is not commonly done.

Screps get along especially well with intelligent reptilian beings, but few creatures want to attack them anyway. This is probably due to a unique mutation screps possess, termed friendship generation. This unconscious mental mutation operates continuously, and it produces an effect similar to the plant mutation allure*ment,* in that anyone within its range may be persuaded that the mutant is a cherished ally who must be protected and defended at all costs. This is treated as a mental attack, with the mutant's Mental Strength serving as both the range of the mutation in meters and the attack strength. Since the presence of several mutants with this power requires individual attack rolls for each, those who visit screp communities almost always report that those are the nicest places that anyone could ever imagine.

Screps do have one enemy – a mutant form of chuckwalla that has made its way into areas bordering screp forests. This creature is not very large, but it is ravenously carnivorous and possesses a strong form of mental shield. Screps hate these creatures, known as guans, and often recruit "friends" to fight them.



Slippigs (Greaseballs)

NUMBER: 1d6 MORALE: 1 HIT DICE: 6d8 ARMOR: 9 (-5 to be hit) SIZE: Up to 1 m long

LAND SPEED: 12/1200/30

 $MS \cdot 2d6$

ATTACKS: Does not attack ORIGINAL STOCK: Domestic pig MUTATIONS: New body parts (oil glands), and speed increase (improved) HABITAT: All temperate areas except ruins, deserts, and deathlands DIET: Roots, grasses, fruit, nuts, insects, grubs, carrion, and garbage



DESCRIPTION: Slippigs resemble the pink, curly-tailed porkers of the pre-holocaust era, but they are completely hairless. They are, of course, frequently attacked by carnivores, and their only effective defense lies in running away. They use their speed *increase* only when they cannot outrun a pursuer any other way. They are expert dodgers and almost never tire. However, they are no more intelligent than an ordinary pig, so they can be trapped, or hunted and cut off by an

Triphants (Flailers)

NUMBER: 1d4 (20% herd with 7d6) MORALE: 2d4 + 1 HIT DICE: 12d12 ARMOR: 5 SIZE: 4 m tall at shoulder

LAND SPEED: 20/1600/32

MS: 1d4 IN: 1d6 DX: 1d10 + 12 CH: 2d4 CN: 1d10 + 11 PS: 5d20 + 35

ATTACKS: 3 trunk strikes for 3d4 damage, plus poison Intensity Level 7, each; or, 1-4 foot stomps (per charge) for 4d6 damage each

ORIGINAL STOCK: African elephant MUTATIONS: *Heightened sense* (taste), and *new body parts* (fur, extra trunks with spikes)

HABITAT: Temperate and tropical forests and grasslands

DIET: Most nonpoisonous plants

DESCRIPTION: Before the Social Wars, few elephants remained in their native habitat in Africa. The destruction of their lands and continued poaching had reduced their numbers almost to the point of no return. However, the various forms of mutant elephants seem to be on the rise now, and they become more numerous as the years pass.

Triphants are a typical post-holocaust species. They are covered in long, shaggy, brown hair, much like their mastodon and mammoth ancestors. A few albino triphants have been sighted, and these are revered by local native populations. Triphants have ivory tusks which are rather short, growing only up to 1 m in length. Ivory hunters have found that these may be sold for up to 2000 gold pieces in major cities. Triphant tusks are useless in combat.

Triphants have three trunks, none of which possess nasal passages. (Triphants have olfactory openings on their skulls, between their eyes.) Each trunk lacks hair and is covered in tough, spiked hide. When a triphant hits a man-sized creature with a trunk, it pulls the victim upward and rolls it up in the trunk's length, doing continuous damage of 3d4 per Action Turn from constriction and piercing. In addiexpert team of hunters (GM may judge the effectiveness of hunting strategies). It is also possible to surprise a slippig and kill it with a single powerful attack before it has a chance to run.

Slippigs secrete a very slippery oil similar to Kinetic Nullifier Fluid, which covers their entire bodies at all times. Any physical blow does only half damage to a slippig, since the sword, paw, or whatnot slides off on any roll except a 20. Any sort of grabbing maneuver (including a bite with a mouth of any size) causes the pig to spurt out of the clutches of its attacker, giving it a full Action Turn head start while its pursuer gets up or looks around for it again.

As slippigs are basically herbivorous, they are often attacked, poisoned, radiated, or infected by plants. A slippig seriously hurt by poison, radiation, or disease is easy to catch, but dangerous to eat. Only the considerable fecundity of slippigs has enabled them to survive as a species.



tion, the spikes possess a paralytic poison of Intensity Level 7. Triphants won't grab at creatures they recognize as potentially harmful on contact (e.g., spiked, heated, or electrically charged). Up to three opponents may be so grasped.

Larger opponents, ranging up to 4 m in height, can be charged and trampled by enraged triphants. All four feet can strike at a trampled opponent, each foot doing 4d6 damage.

Triphants roam the countryside (avoiding deathlands) eating vegetation. When a herd finds a particularly good spot, it may rest for a week before moving on. Triphants are not territorial, but cooperate in defense of their herd and fight against all odds to protect their young. Adults typically walk on the outside of the herd, leaving the young in the middle. Though generally peaceful, triphants may charge anyone coming within 40 m of the herd who appears to present a threat to them. Huge carnivores, such as komodos, cause herds to flee.

Triphants love water and frequently bath in it to cool themselves. Fortunately, they can detect whether water is contaminated by touching a few drops on the end of a trunk to their mouths.

If caught at an early age, a young triphant (under 1 year old) can be tamed to allow itself to be ridden and perform heavy lifting and carrying tasks. Triphants can pick up loads of up to 200 kg in each trunk, and can carry up to 1000 kg easily if it is distributed over their backs. A triphant can break through a reinforced wooden door in one Action Turn.

Vilchneks (Jumping Spiders)

NUMBER: 1d4 - 1 (minimum of 1) MORALE: 1d4 + 6 HIT DICE: 14d6 ARMOR: 4 SIZE: 2.5 m at shoulder, 4 m in diameter

LAND SPEED: 6/900/32

MS: 1d10 + 6 IN: 1d4 + 1 DX: 1d8 + 8 CH: 1d4 CN: 1d10 + 11 PS: 1d12 + 20

ATTACKS: 1 bite for 4d6 damage, plus poison (Intensity Level 11-16) ORIGINAL STOCK: Jumping lynx spider

MUTATIONS: Absorption (electricity), chameleon powers, fear impulse (D; winged beings), heightened balance, and

heightened vision HABITAT: Temperate trees, shrubs, and tall grass

DIET: Large animals, including humans and humanoids

DESCRIPTION: Vilchneks are predatory spiders that use their *chameleon powers*



to lie in wait undetected until prey happens by. Parties are surprised by a vilchnek encounter unless they succeed on a surprise roll and the character with the highest IN in the party makes a successful check vs. IN x 1, or unless someone in the party has a mutation that negates surprise, such as *intuition*. Vilchneks have eyes all around their heads, so they cannot be surprised by anything visible. They are surprised by invisible creatures on foot only on a 5 or 6, because they are very sensitive to ground vibrations. Vilchneks tend to lurk in trees or among shrubs on the ground, and hunt by day or by night. They can cover up to 12 m in a single leap. Their *fear impulse* is set off only by birds and other winged creatures at least as large as themselves, and they may not notice furled wings.

Xloes (Thunder Clappers)

NUMBER: 1 MORALE: 2d4 HIT DICE: 12d8 ARMOR: 7 SIZE: 4 m long

LAND SPEED: 4/300/6

MS: 1d6 IN: 1d6 DX: 2d12 CH: 1d4 CN: 1d8 PS: 3d6 + 2

ATTACKS: 2 tail slaps for 1d6 damage each; or, 1 bite for 1d8 damage ORIGINAL STOCK: Python MUTATIONS: *Mental block* (robots), *new body parts* (legs), and *sonic blast* (variant) HABITAT: Tropical freshwater lakes DIET: Small animals of all types

DESCRIPTION: This mutated snake grows to a maximum length of 4 m, and is a deep, cobalt blue in color. A xloe possesses a single pair of lizardlike legs just behind its head which aid in movement, and its body splits into two separate tails, which gives the xloe the ability to use them as whips in combat.

In addition, when excited or surprised, the xloe can slap its two tails together to produce a thunderous sound equal in force to a *sonic blast*, aimed in all directions. This attack has a range of only 8 m radius, and can only be performed three times per day. Those who have never experienced this attack must roll against



their MS x 5 or flee as if affected by the *fear generation* mutation, as the blast temporarily affects the victims' nervous systems. Those who have suffered one xloe blast, however, can mentally strengthen themselves against further

attacks of this sort, and they do not have to flee.

Xloes live in any climate save arctic and high mountainous regions. They prefer fresh-water lakes, probably because of the abundance of wildlife in these areas.



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ACADEMY OF ADVENTURE GAMING ARTS & DESIGN OFFICIAL ORIGINS AWARDS NOMINATION BALLOT

for the year 1985, to be presented at ORIGINS '86, July 3-6, 1986, in Los Angeles, California (for information about Origins '86, write PO Box 8399, Long Beach, CA 90808)

The Origins Awards, presented at Origins each year, are an international series of awards aimed at recognizing outstanding achievements in Adventure Gaming. They are comprised of the Charles Roberts Awards for boardgaming, and the H.G. Wells Awards for miniatures and Role-Playing games. An Awards Committee of hobbyists (some professionals, but primarily independents) directs and administers the awards system. The nomination ballot is open to all interested gamers. YOUR VOTE can make a difference! A final ballot is prepared by the committee and voted on by the members of the Academy of Adventure Gaming Arts & Design. Academy membership, \$3 per year, is open to active, accomplished hobbyists, both pro and amateur. Membership guidelines are available for a SASE from the addresses given below. Correspondence should be sent to the US address.

Present members may renew by sending their check with their ballot. Checks should be made payable to GAMA for US \$3. The Academy and the Awards Committee as well as the Origins convention itself, function under the overall direction of GAMA, the Game Manufacturers Association.

Instructions. Read Carefully. Print legibly or type nominations. Ballots that are messy, not filled out correctly, or show attempts at stuffing will not be counted. You may list three nominees per category. It does not matter in what order you list them. To keep the voting as meaningful as possible, do not make selections in unfamiliar categories. YOU MUST SIGN THE BALLOT! And include your address. You may vote only once.

SIGN THE BALLOT! And include your address. You may vote only once. Nominations should be for products produced during the calendar year 1985. Miniature figure series nominations should be for product lines which are either new or have been substantially expanded in 1985.

This ballot may be reproduced and circulated by any means available, provided its contents are faithfully copied.

All Adventure Gamers are encouraged to vote!

DEADLINE: MAY 3, 1986

THE CHARLES BOBERTS AWARDS FOR OUTSTANDING

THE H.G. WELLS AWARDS FOR OUTSTANDING ACHIEVEMENT IN MINIATURES AND ROLE-PLAYING GAMES

THE ONANCEO NODENTO ANALIDO TON OO TO IANDING				
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1. Best Historical Figure Series, 1985:	11. Best Pre-2 Game, 198	
2. Best Fantasy/SF Figure Series, 1985:	12. Best 20th (Game, 1	
3. Best Vehicular/Accessory Series, 1985:	13. Best Fanta 1985:	sy/SF Game,
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5. Best Role-Playing Rules, 1985:	15. Best Adver Home C	nture Game for
6. Best Role-Playing Adventure,	16. Best Amate Gaming	eur Adventure Magazine, 1985:
7. Best Role-Playing Supplement, 1985:	17. Best Graph 1985:	nic Presentation,
8. Best Professional Role-Playing Magazine, 1985:		
9. Best Professional Miniatures Magazine, 1985:		
10. Best Play-By-Mail Game, 1985: (all are eligible except last year's winner, StarWeb)		
Name:	Signature:	
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Send in your ballot by May 3, 1986 to only on	e of the following address:	
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NEW PRODUCTS FOR JUNE 1986

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An unusual adventure for character levels 8-10.

An evil sorceress has created a sinister magic spell that steals life energy from her victims and uses it to power an awesome army of androids!

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REE

A mighty-thewed adventurer finds a strange hut that walks on chicken legs ... the mysterious home of Baba Yaga, the witch of Russian mythology. Once inside, he is plunged into a world of mystery and nightmare ... a place from which there is no escape!

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NEW PRODUCTS FOR MAY 1986

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D

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M2 VENGEANCE OF ALPHAKS

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The Slave Lords are back, and they're deadlier than ever!

In the incredible revision of the famous *Aerie of the Slave Lords* series (AI, A2, A3, and A4), you can once again do battle with the marauding slave lords, who are menacing Highport from their fortress high in the Drachensgrab Mountains. In this special 128-page supermodule, the adventure has been greatly revised and expanded for character levels 7-11, and now serves as a sequel to T1-4, *Temple of Elemental Evil.*

Relive one of the most titanic adventures of all time — when you become the *Scourge* of the Slave Lords!

> Product No. 9167 Suggested Retail Price: \$15.00

SNEAK PREVIEWS

This is going to be an exciting summer for role-playing! Not only will the D&D® Immortals Set be released, but next month we'll unveil the first of this year's two AD&D® hardback books! The *Dun*geoneer's *Survival Guide* is filled with incredible new information that will change dungeon adventuring forever!

Later this summer, the long out-of-print

GAMMA WORLD® game will be re-released, along with a new GAMMA WORLD module.

F

Remember the world of Blackmoor, Dave Arneson's campaign world? Well, it's coming back in the fall, along with the famous Temple of the Frog adventure, last seen in the *Blackmoor* supplement to the D&D® Collector's Set.

The DRAGONLANCE® saga is set to conclude with DL14, but there will be a DL15! This fantastic accessory will reveal all the secrets of the world of Krynn, all laid out for future campaigning!

And, for Halloween, we're releasing the sequel to *Ravenloft*... Count Strad von Zarovitch walks again!

So stay tuned for the best in role-playing excitement from the people who started it all!

PROFILES IN DESIGN

We're delighted at the response to the new TSR Profiles feature, and your desire to learn more about the crazy folks who put out your favorite role-playing products. Rest assured, we won't stop until all your favorites (even the ones you've never heard of) get their place in the sun.

But we have gotten a few letters from people who want to take the Game Designer's Test, mentioned in several of the Profiles. Well, we're not hiring game designers at the moment, and we don't use the test any more. If you're serious about game design, the best way to get our attention is to get published. But before you submit material either to DRAGON® Magazine or to the TSR Acquisitions Department, you'd better write for a set of guidelines or a submissions kit. For the magazine's guidelines for writers, send a self-addressed, stamped envelope to DRAGON Magazine, PO. Box 110, Lake Geneva WI 53147. For the rest of TSR, write to the Acquisitions Department, TSR, Inc., PO. Box 756, Lake Geneva WI 53147 to receive a submissions packet. It's a tough and competitive business, and we wish you the best of luck.

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DOUG NILES

When Doug Niles was in his early teens, he read all the Tarzan books three times each. "Did you know that Tarzan once visited Wisconsin?" he said.

Doug was born on Dec. 1, 1954, in Brookfield, Wis., a suburb of Milwaukee, and moved to Nashotah, a small town to the north, when he was twelve years old. In addition to his early interest in heroic fantasy, Doug discovered wargaming, and played *Luftwaffe* and *France 1940* with his brother for hours on end.

"I also wrote a number of short stories in high school," Doug said.

In his senior year, Doug

onglas Nilas

made a short film, "The Further Adventures of Sir Charles Percy Harrington-Warsfield III: The Search for the Brown-Bellied Swamp-Stomper," in which his overweight shaggy brown poodle played one of the title roles.

"I played the hero," Doug said, "but the film was mainly an excuse for my best friend Fred and I to get out of school in the afternoon and tear around the woods in his father's jeep. The movie never won an Oscar, but I did get an 'A' for it."

Doug went to college at the University of Wisconsin at Oshkosh, where he majored in speech and minored in English. There he met Chris Schroeder, whom he married three years later. They have one daughter, Allison, age 4, and have a second child on the way.

After graduation, Doug got a job teaching Speech and English at Clinton (Wis.) High School, about 30 miles away from Lake Geneva.

"One day, one of my students came up and said she had a note to get out of class that afternoon because she was going to be interviewed by People magazine. Her name was Heidi Gygax. I asked her why *People* wanted to interview her, and she told me that her father had invented the DUNGEONS & DRAGONS game. Well, I had heard of D&D, but didn't know that the designer lived so close to me. The next day, Heidi brought me a copy of the original D&D Basic Set, and two days later, I got some friends together and played my first game. I was the DM."

"I went on to run a thoroughly forgettable campaign over the next few years, but everybody had fun."

Doug didn't realize that this coincidence had changed his life. "A few years later, one of the players in my campaign, Gali Sanchez, started working for DRAGON magazine," Doug continued. "One day, he told me that TSR was hiring editors, and I applied for a job. I took the editing test. which consisted of a 14 page manuscript I was supposed to mark up. I only found three things to change. . . and flunked the test. But TSR was also hiring game designers, and so, armed with a half-written novel and some notes from my campaign, I applied for a design job. I went through five interviews, and gradually convinced them that I could do the job."

In January, 1982, Doug left his teaching job and came to work for TSR as a game designer. "For the first few weeks I reviewed and critiqued outside submissions, and I wasn't too good at it. I kept pestering my boss, AI Hammack, for a design assignment, and finally he gave me an old brief for a novice-level module, *Cult of the Reptile God*, and told me to write it. I completed it in four weeks, and it was published. I don't know whether they liked it because it was good, or because I did it in only four weeks."

"In the summer of 1982, I designed my first game, the Knight Hawks rules for the STAR FRONTIERS® game, with much help from my editor, Steve Winter."

In a crowd of extroverts, Doug's modest, unassuming personality makes him one of the best-liked people at TSR. "I feel extremely lucky to have had the chain of coincidences that brought me here," he said. As an ex-teacher, Doug's advice to wouldbe designers is to pay attention in school and learn the fundamentals. "I was able to capitalize on the writing experience and classroom training I already had," he said. "Without it, I would have had a much harder time."

BIBLIOGRAPHY

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few months, she was promoted to Managing Editor, although she was only 21 years old. She handled all the editing and production, managed a staff of 20, and wrote a number of articles for the encyclopedia. The *Young People's Science Encyclopedia* was first published in 1962, and is still being published today.

Jean said, "The most exciting event of my professional career was the publishing of this first encyclopedia. With that job, I was ballooned into the mainstream of publishing before I had even known where I was heading. It was a thrilling, enriching experience — being with experts in their fields, top consultants from many walks of life, and enjoying the concepts of the varied artists. I think being involved with the compiling of a major reference work of any kind is a stirring (and exhausting) experience."

In 1964, Jean decided that she was ready for something new, so she took a job in London. "The logic of that move escapes me now, except there was no position in Chicago at the time that I was interested in, and the thought of moving to New York scared the wits out of me."

While she was in London, the first

chief to create a 14-volume aviation and space encyclopedia. "It seemed like too good an opportunity to miss, so I left London and came back to the United States.

"It was quite a challenge overseeing the work on a science encyclopedia for high school students and adults. The science was much more involved than it had been on the earlier set, but there were a lot of benefits, too," Jean said. "The Air Force flew me to a number of special events, including the rollout of the C-5 aircraft where President Johnson spoke. I saw the launch of the first Saturn V rocket from Cape Kennedy, and I spent a lot of time in Washington, D.C."

Above and Beyond: The Encyclopedia of Aviation and Space Sciences was published in 1968. After that, Jean moved to Washington, D.C., and worked as a freelance editor and writer.

In 1976, Wallace Black came back into her life. He was widowed, and had come to Washington on business. "We got together for dinner one night," Jean said, "and three months later we were married."

The next year, the Blacks moved to Lake Geneva, Wis. Wallace and Jean have two children, a son, Winston, 8, and a daughter, Chandelle, 7.

One day a friend introduced her to Rose Estes, who wrote a number of the early ENDLESS QUEST® books for TSR. "I didn't know about TSR, even though it

was only a few miles away.

the Busged Buck

I had heard of the DUNGEONS & DRAGONS game,

of course, but I had no idea it was published in Wisconsin." Because of her exceptional background, she was hired as Education Editor, and worked with Jim (GAMMA WORLD) Ward to put together an education program. That job evolved into her current position as Managing Editor of the Book Department. She played a key role in the creation of the DRAGONLANCE books, and has written several books of her own.

"My career is reflected in my daughter Chandelle's name. In aviation, a chandelle describes a 180-degree climbing turn by an airplane. Ever since the publication of my first encyclopedia, my career has taken fascinating turns that present greater challenges," Jean said.

BIBLIOGRAPHY OF TSR BOOKS

MASTER OF RAVENLOFT (AD&D® Adventure Gamebook #6) GHOST TOWER (SUPER ENDLESS QUEST™

Book #2) VILLAINS OF VOLTURNUS (ENDLESS QUEST® Book #8)

BLASHFIELD BLACK

Jean Blashfield Black is Managing Editor of the TSR Book Department, editor of the DRAGONLANCE® book line, and an author of many books.

Jean was born in Madison, Wis.. and raised in Evanston, III. She has a B.A. in Experimental Psychology and English from the University of Michigan. She did graduate work in Science Education at the University of Chicago.

After graduating from college, she was hired by Wallace Black at Children's Press in Chicago, where she started working on a 20-volume science encyclopedia. Within a were published. They were a series of Gilbert and Sullivan operas retold for children,

and had beautiful illustrations. They were published in the United States by Franklin Watts. "I also wrote a book on scientific experiments, and served as American consultant on several adult 'coffee table books,' one of which was a book of photographs by Lord Snowden, Princess Margaret's ex-husband," Jean said.

In 1967, Wallace Black, who had given Jean her first job, started his own company, New Horizons Publishers, and asked Jean to come back to Chicago as his editor-in-







HE DISTANT SOUND OF HOOVES made Derwen stop and look back the way she had come. Shading her deepblue eyes with a hand against the sunlight, she saw a chariot — a fine, light vehicle of wood and of wickerwork ornamented with shining copper. Two

fierce, proud war ponies drew it. Glorying in their speed was the charioteer, head thrown back in laughter, hair brilliant as yellow flame. As his team approached, he could not help but see the young woman, and he reigned the ponies in, struggling because they — fierce, sharphooved creatures — would much rather have continued their race.

"It's a fine team you have there!" Derwen called up to him.

He was younger than she had first realized. No longer quite boy, not yet quite man, he was still too tall for his width. The first yellow down of what would, in time, be a fashionable moustache ornamented a bright, cheerful face. "Are they not!" he laughed with undisguised pride.

The half-wild ponies were still fretting and curvetting and kicking. Derwen, picturing a well-placed hoof kicking through the chariot's wickerwork side, stepped quickly forward, managed to put her hands on the heads of the beasts without getting bitten, and whispered the proper Words to calm them. As the ponies settled under her touch, the young woman became aware that the driver was nervously watching her, and she laughed.

"Do you think me one of the Folk? What, with the bright sunlight pouring down? I'm human – really I am. I'm a bard of the harp, and my name is Derwen."

The young man gave her a quick grin, embarrassed by his suspicion. Then, however, the meaning of what else she had said caused him to stare at her. "A bard? You? Ach, I mean a woman all alone?"

"A bard," she echoed dryly. "I grant you, a woman bard is a rarity, but it's not only you men who can have a love of wandering."

He acknowledged that with a second grin. "And to where are you wandering now?"

"To wherever this road may lead."

"Ach, that I can tell you. It ends at the dun of my foster father, Niall mac Connla. I am Ciaran mac Comor, and I'm returning there." His smile was friendly and alive with curiosity. "Would you be wanting to ride there with me?"

"Why yes, Ciaran mac Comar, I think I would."

She scrambled up beside him, gripping the smooth rim of the chariot, and Ciaran shouted to the ponies. It was not easy to carry on a conversation in a speeding, jouncing chariot, but the young man tried his best.

"Derwen? That's a Cymric name."

"Ach, make it your Gaelic Diarwen if you prefer."

"You look Cymric, with that black hair."

"The gods only know what I am, Ciaran. I was a foundling."

"No clan?" He was horrified, then tried to recover his composure with a hasty, "But how did you so easily calm the ponies?"

"Oh, ever? living creature has a Word to quiet it, if one

The Grey Stones

by Josepha Sherman

can but learn that Word."

Ciaran stared at her, not certain whether or not she was jesting. "Now I can believe you are a bard. Only a bard would speak in mystic riddles."

Darwen started to laugh. Quickly, though, a nameless cold seized her, as though a dagger had pierced her heart. She gasped, nearly losing her balance in the chariot, and fiercely turned her head to the left, seeking the source of dread.

"What lies beyond that hill?" she asked sharply, and Ciaran glanced at her in surprise and in, thought Derwen, some hint of trepidation.

But his voice was light, the overconfident voice of the untried warrior. "Oh, that is but some old mound we call the Grey Stones. There is no man of all Niall's *dun* who would go there after nightfall — but one night I shall go and see if that which they say dwells there can withstand the bite of iron!"

"Don't be a fool!" snapped Derwen, but quickly tempered it with, "Don't do that."

"Why not? Are you afraid?"

"Not for myself," the bard muttered. As they passed the unseen Grey Stones, the coldness diminished. When it was gone, the Derwen's spirits lifted. "Ah, but we're being too grim," she remarked.

"Oh yes," agreed Ciaran lightly. He had not been aware of the chill aura. "And most surely, since we are returning to good Niall's *dun*, too!"

With that remark, Derwen glanced at him, comprehending. "And to a fair maid as well, eh?"

Ciaran nearly dropped the reins. "How did you –" The young woman grinned. "Oh come, I *am* a bard!" She was also, though she did not mention it, more clearsighted than most were, in a way that had nothing to do with mere physical vision. "Who is the fortunate lass?"

All at once, he pretended to be very busy guiding the team. "Niall's daughter," Ciaran muttered, then, with greater courage and more poetry, "Ethne of the red-gold hair and the dancing eyes, the fairest, truest . . . " He trailed to a stop, reddening, choking with embarrassment, and Derwen smiled.

"True love ," she murmured. "Ah, true love, indeed!" "Yes!" Ciaran was defiant. "In a year I return to my own father's *dun*. I shall go on some great raid to make my name as a warrior. Then I shall seek out Ethne again, and if she will have me - Ah, but she will, she must!"

"Aie, Ciaran, look out!"

His attention returned to the present just in time to prevent the ponies from running directly into the palisade that surrounded Niall's *dun*.

"I think we've arrived," said Derwen mildly.

Niall mat Connla was a tall, lean man of noble bearing. His dark red hair and moustache were streaked with grey, Derwen noticed upon meeting him, and his eyes reflected tranquility and intelligence. Though surprise flickered in those eyes at the sight of Derwen, he recovered quickly, gravely welcoming her with all the courtesy due a bard.

That night in the crowded great hall, Derwen politely sang her host's praises, and received an equally polite thanks from Niall and a thin gold armband, nicely calculated to be not too much reward, not too little. The bard smiled at those predictable gestures and, social obligations satisfied, went on to other tales.

Derwen was not one for false modesty. Well aware of her skill with harp and voice, Derwen was not at all surprised to hear Niall's followers fall silent one by one, captives to her tales and music. She was also well aware of the almost faerie picture her presence made: firelight from the central hearth played over black hair and blue bardic robes, and her beautiful harp shimmered because of its fine bronze and silver strings, bronze for the strings of the lower octave, silver for those of the upper octaves. After a time, Derwen sang for her intrigued audience the romantic tale of Etain, and she purposefully watched Ciaran and Ethne as she played her harp.

The love that was apparent between those two made her smile. For, though wise Niall would not let them be together very much, there were enough quick whispers and glances and subdued laughs to assure the bard that young Ethne of the red-gold hair did indeed return Ciaran's love.

A spirited lass, that! thought Derwen, noting the strength of Ethne's small chin and the mischief lurking in her bright blue eyes. Ciaran will not have the easy way of it in any arguments they may have! Ah, but I wish them much joy of each other!

For a full week Derwen slept under a roof, and now the bard found herself unable to sleep at all. At last she rose in disgust, dressed in darkness, threw a cloak about herself, and, harp over shoulder, left Niall's house for some fresh night air.

It was chilly out, chill and dark, for the moon was waning and the starlight seemed faint and feeble. Derwen shivered suddenly and, without conscious thought; turned in the direction of the Grey Stones.

"There is that out there this night which slumbers not. . . . I wonder why? Eh, but I'm being foolish! All the folk here are safe behind iron-guarded walls – myself included."

The bard set about to calm and quiet her thoughts with disciplines she had learned as a young student. And so successful was she now that she actually fell into a light slumber, huddled in her cloak against one of the carven house pillars. A murmuring of angry voices suddenly disturbed her, but the sounds were surely part of her dreams, only part of her dreams, and she shrugged them off and slid into deeper slumber. . . .

It was the voice of Ethne, and it was pleading with her. "Derwen! Wake up! Oh please, wake up!"

"No need to shout in my ear, lass." The bard uncurled, stretching stiff muscles. "What, have I spent the whole night out here? The dawn won't be long in coming. What is it Ethne? What's wrong?"

"It's - about Ciaran."

Derwen snorted. "Of course it's about Ciaran! Don't tell me you woke me so abruptly simply because the two of you have fought!"

"How could you -"

"Ach, I heard you last night. I thought it was a dream,
but plainly you've had a quarrel."

"Yes, yes, we did - a foolish thing. And I hate myself for it."

"Of course you do."

"You don't understand! Ciaran's gone off to the Grey Stones!"

Derwen sat bolt upright. "What!"

"He has," the girl insisted in misery. "It was my fault. He was boasting – you know the way of it with young men. But I – I grew impatient with the listening, and one thing led to another, and I began to taunt him, telling him that he was no more than a boy with not a warrior's deed to his name. Oh gods, and he believed I was ashamed of him! Then Ciaran shouted that he would prove himself the match of any man. He swore he would bring back a head greater than any ever taken in battle. And before I could stop him, he was gone." Ethne was shivering uncontrollably. "He was to have been back before sunrise. Now it's nearly that, and not a sign of him." Ethne was too much the daughter of a noble to weep before a stranger, but it seemed to Derwen that Ethne's composure would soon shatter.

Derwen got to her feet. "Would that I had not slept so soundly! I could have stopped the young fool."

"He's not a fool!" Ethne protested.

"Oh no, of course not. He's only ridden out alone to conquer single-handedly something even seasoned warriors choose to avoid. And to ride out on such a night, a night when I sensed an evil presence!" The bard stopped at the sight of the girl's fierce, desperate eyes, and sighed. "Have you told your father yet?"

The keen gaze faltered. "No. I . . . I wasn't supposed to be where I was. I mean, alone. With Ciaran." She waved an impatient hand. "There are none of the *druidhe*



here to help. So I came straight to you because you're a bard and sacred. Can you help or not? If no, why then I - I shall ride out to find Ciaran myself!"

"You shall not! There's already one youth lost out there, I don't want to have to be going after two!"

Ethne stiffened. Plainly, no one but her father had ever used that tone of voice on her. But all she said was a soft, "He is in peril, isn't he?"

Derwen hesitated, caught by pity she felt for Ethne. "Oh lass," she said gently. "I fear so. But Ethne, yes, I will try to help, as a bard I promise you that. Now go and tell your father what has happened."

What Ethne had said to her father, Derwen did not know, but she saw the girl standing proudly by the gate as the bard, Niall, and a party of his men departed in the first rays of sunlight in search of Ciaran.

They traveled for a time in silence. Regarding Niall in his chariot as they rode, Derwen thought that he resembled a tall, grim statue of a warrior. At last he muttered, half to himself, "Young fool!" and Derwen gave a sharp little laugh.

"My sentiments exactly."

He shot her a sharp glance. "You're not all that much older than he, bard."

"But wiser in the way of things, grant me that."

"I don't hate the boy, you must understand that. I wouldn't even mind if, at some future time, he came to take my Ethne as his wife."

"I know."

"He is my foster son, after all, and his father is foster to my own son. It would grieve me to tell Comor of his son's death,"

"Eh, don't despair so quickly!"

"What's this? Have you some secret knowledge? Or are you just being mystical like all your breed?"

"Oh Niall mac Connla, I'm quite able to separate story from reality! And I'm no more pleased at having to be out on this hunt than are you." She thought about what might be lurking at the Grey Stones and shuddered. "Less pleased."

They were almost out of the forest and up to the hill of the Grey Stones now, when Derwen suddenly cried "Ah, look!"

It was a pony large enough for riding – Ciaran's mount surely – helplessly snarled in bushes that entangled the bridle and reins. The pony was limp with exhaustion, its coat wet and its eyes wild with terror.

"Ah, poor beast!" Derwen sprang from Niall's chariot and approached cautiously – the pony wasn't so exhausted that it would not try to bite – murmuring the calming Word so that the men could safely untangle the bridle and reins. Though the bard kept her face impassive, her heart was sick with fear for Ciaran.

"My lord! Lady! Come quickly!" called one of Niall's men.

Ciaran lay motionless on the bare hillside, the shadow of the Stones touching him. He was sprawled on the ground, the hilt of his broken sword still clutched in one hand. His bright hair was dulled by earth.

"Is he dead?" Niall's voice was toneless, as if he feared

the worst.

"Wait . . ." Derwen was searching desperately for a pulse, a heartbeat. "I think . . . Yes! He's still alive!" Her hand, reaching for the pulse at his throat, momentarily closed about a little amulet of silver, and jerked away! The thing had shocked her, just as if she had touched metal on a cold, dry day. A true amulet, this, and more — a true love-gift from Ethne, no doubt about it. Derwen looked up at Niall with a smile.

"Your daughter has done him a greater service by this gift than she could have ever known! Thanks both to love and to silver, Ciaran has a chance."

"But he lies so still!"

"Ach, he's in a trance." Derwen's flash of joy ebbed away, leaving her with only emptiness. "Hurry, take the lad back to your *dun*."

"But -a trance -" Niall glanced at the looming Stones, and one hand stole, as though of its own will, to the hilt of his sword. "It's true then. There is something -"

"Oh there is!" agreed the bard sharply. "Go with your men, Niall mac Connla. See Ciaran safely home."

"What of you?"

"I . . . I must stay here."

"Nonsense! Whatever is here is not for you to fight." "Is it not?" murmured Derwen in resignation.

"There's no one else. Look you, a bard may be less than a druid, but only by one degree of training. Whatever hides in the Grey Stones cannot be fought by swords. Ciaran proved that. Nor would the tearing down of the Stones by brute force help. No. Whether or not I like the idea, this is my task, not yours."

"Ach, bard or no, you're still only one young woman! I will not abandon you -"

"Niall, Niall, if you stay, you endanger me as well as yourself." She caught her breath, seeing him all too prepared to argue some more. "I'm not being noble and heroic, man! To be honest, I . . . I . . . I'd just as soon be going and leaving the cleansing of the Stones to someone else. But Ciaran . . . How long do you think the lad can live like that, unable to take food or drink? If I don't at least try to do what must be done, I might as well as kill him myself! Oh, I don't want the weights of Ciaran's death and of Ethne's grief on me. Ach, Niall, enough! If you would see the Grey Stones free of foulness, if you would see Ciaran awake and well, leave me now."

That the Grey Stones had once been no more than a long barrow, Derwen knew. Perhaps, the Stones were a family grave of the people ages past, as were so many of the other Stones scattered across the land. But here much of the protective earth mound was gone, stripped away by time or by thieves, leaving many of the supporting stones bare as some great, broken skeleton.

The bard paused. She had no fear of such places, not ordinarily, no more than she was afraid of those who had been laid to rest in those ancient days of bronze. No matter what legends might make of them, they had been but human; with her keen senses, she had even, at times, been able to feel traces of them as they had existed in life.

But there were certain of these mounds . . . Had it been by chance or by design that some burial sites were found at points where the world of life and death and that of Faerie overlapped? There was often good reason for those stories of the Folk of the Hollow Hills.

Still, she assured herself, she had had dealings with Faerie things ere this. Terrifying, chilling though the being here might be, iron would stop it. Surely, no Faerie creature could endure the touch of iron.

Could it? All right, she would learn what she could learn. Gritting her teeth, the bard touched a hand to one of the roughly worked stones and forced her mind to relax so that she might see. . . .

Shaken, stunned, Derwen found herself sprawled on the ground with no memory of having thrown herself aside. Aie, her harp! No. She had not fallen on it; the harp was untouched. The bard ran a trembling hand down over its strings, trying to calm herself, trying to think. Oh, no creature of Faerie, that! Far from it! She could only guess. She remembered that there were Others: these were more akin to Death than Life, and were sometimes accidentally swept across realms to be trapped as the unexpected swirl of force faded again. Left behind, these Others haunted the places of the human dead.

"Ach, such is the case here. Gods, it must be! That trace of alien aura was so sickeningly plain – Ach, I can still sense it. But at least the thing doesn't dare linger in tangible shape in our mortal day lest sunlight destroy it, that much I have learned."

But what good was that? She could not fight the thing except when it *was* tangible, and then — No. Wait. The bard slipped her harp back into its protective cover and got to her feet. After an uneasy moment, she moved around the three great guardian stones five paces or so from the barrow's entrance and stood looking into darkness, waiting, blinking, till her vision adjusted, then stepping warily in. The barrow smelled of earth and of decay, which was hardly surprising, but over these scents lay the heavy chill of the alien Other, and she shuddered. There was little worth seeing save the long stone hall itself and its branching chambers; grave robbers in some past age had done a thorough job of removing valuables.

"But it wasn't they who so unearthed and shattered these poor skeletons. This damage is more recent."

She formed a quick mental image of the wildly raving Other. Realizing it was trapped in this hated mortal world, bound to the barrow, she saw the Other venting its fury on whatever, or whomever, it could strike.

But away from the stone hall were two skulls, dry and yellow with age. Somehow, these remains had escaped the devastation caused by the Other, and Derwen knelt and placed a hand on each, wondering. For a brief moment, Derwen saw the images of those to whom the skulls belonged and the hint of a family about them and the faint ghosts of mourning, and she felt a surge of pity for a grave despoiled.

Ach, foolish! The reek of Other was making her head ache, and the bard got quickly to her feet and left. Afterwards, she stood outside the stone hall with head thrown back, taking deep breaths of fresh air.

It was time to plan.

Derwen looked about the darkening landscape, thought

of the merry fire of Niall's hall, then shivered. Ah gods, how wonderful to be back there, safe and secure and warm! How wonderful, for that matter, just to be up and away in the night, away from the barrow and its dweller, away from Ciaran and Ethne and all the others who were, after all, little more than strangers to her.

But then came the memory of Ciaran's bright hair befouled by earth. They had not been bravado, those brave-sounding words to Niall; she knew only too well that should she flee, as panic and common sense were urging her to do, she would be killing the boy as surely as though she had knifed him. Murder by omission.

Unwittingly, Ciaran brought her here to her own death. Gods, she had had all day to ponder, and she had still not come up with a sure plan.

"Iron? No, no, think Derwen. Your training taught you that iron is useless against creatures of the Other world. But if iron won't stop the thing, then maybe fire – No! There isn't enough on all this bare hillside to fuel any purifying flame!"

Derwen bit her lip in frustration. There was a way out of this, she knew it, but it was eluding her. Surely, a druid would have known what to do, surely so. But she was not a druid, she was only a bard - Only?

"Wait, now. It just struck me! If that Other is Death, then – then I have a weapon that is Life! Oh, I have! At least I pray I have. Ach, if I'm wrong, I probably won't be having the time to worry about it."

Seating herself just before the three guardian stones of the barrow's entrance, trying to convince herself she was shivering more from the chill of the rapidly cooling earth than from fear, Derwen took up her lovely harp once more and set about tuning its bronze and silver strings. There, now.

For a time, she couldn't continue. She could only set her harp aside, clenching her hands to try to stop their trembling. At last, the bard took a deep breath and picked up the harp again, testing the sound of the strings one last time.

It was true, it was true — there was no further excuse for delay. Carefully, she began to coax forth a melody, tentative at first, then brave. The music rang out boldly, the bright strings glowing and gleaming as the last light of dusk faded.

In the new darkness of night, Something stirred within the Grey Stones. Derwen sensed it — hot as black flame, cold as winter's heart — long before she saw it. Something fierce with hatred swirled out toward the entrance and stopped short at sight of the bard, stopped and took what shape it could take. Derwen didn't look; she had no desire to see raw hatred taken tangible form. She continued her harping, though her fingers trembled on the strings.

"Mortal."

Dear gods, the thing has human speech! Derwen thought.

"Mortal, why are you here?"

I mustn't answer, thought Derwen, not yet. I must keep harping.

"Why are you here?" the Other asked again, anger swirling up in the words. "Why are you here?"

Now! And Derwen answered quietly, hands never hesi-

tating, "To harp."

There was a moment of incredulous silence. Then the Other hissed, "You are mad!"

"Perhaps." Her trained voice was calm as still water, revealing nothing at all of the wild pounding of her heart.

"You will die here!"

"I think not."

"I shall rend your mortal shell asunder and drag you down to darkness!"

"You will not."

All this time Derwen's fingers flew over the gleaming harp strings in an intricate web of sound.

"Mortal." There was a sudden sly whine to the alien voice. "Mortal, you do not look at me."

"I see enough."

"Ah? Ah?" The shape swirled and changed, became more nearly earthly-monstrous. "Do you not see these great claws of mine?"

If it wished to play games, so could she. "I see that, but I'll play this."

"Mortal, do you not see these great fangs of mine?"

They were newly formed and gleaming.

"I see that, but I'll play this."

"Do you not see these great eyes of mine?"

Twin fires, fierce with the inhuman hatred for all that lived, blazed into being, and Derwen knew better than to gaze into them. Of a certainty that was how Ciaran had been snared. And were she, with her clear psychic sight, to meet the Other's glance, she would see into its inner being far too well, and that would be the end of her.

"I see that," the bard said quietly, "but I'll play this." And ever her fingers wove that intricate net of sound.

After a moment, the Other cried out in disbelieving rage, "Why, you shall die now, mortal!"

But that silvery web of music seemed to leave a glittering pattern in the air, quick and subtle as the glint of moonlight on rain, and it hurled the Other back and back again, until with a wordless shriek of frustration the being turned to flee back into the darkness of the barrow.

I'm holding it! Derwen thought in wonder. I was right. As that creature is Death, so the power of music is Life, and I'm holding it.

"Ah! Clever, clever mortal!" The cornered Other whirled to Derwen again in a surging of shifting form, its eyes burning like the hot soul of hate. "You think you have me trapped! But you've not won, oh no! For soon, your human hands must tire, your human fingers must fumble. The web will fall, then there will be a rending!"

Oh gods, was the creature right? How had she ever dared to think she would win? Where had she ever found the conceit to think she could outlast a being never mortal?

Yet outlast it she must.

And outlast it she would. The Other's rantings were words, only words. She earned her living with words, so she could ignore them and hear only the music, letting her mind drift, letting her fingers move as though of themselves in the pattern she had set them, letting herself be caught bit by bit in the shining web of her own making. . . .

How slow the hours of the night! How long had she

been playing? How long could she have been playing, her back and arms aching and leaden with the strain, her fingertips sore and burning? The bard ran her tongue over dry lips and silently thanked the gods that the web of music needed no words from her. She had no strength left for song.

Would this night never end?

At least the Other had fallen still. Had it continued and continued its ravings, Derwen knew she would have collapsed. The thing had gone with time from threats to shouts, from pure, inhuman shriekings that had set her teeth on edge to, finally, this bewildered silence.

And somehow Derwen was keeping the web whole, the Other captive, and herself alive. And surely the slow, slow night was indeed slipping past. . . .

Ach, her eyes had nearly closed! Derwen bit her lip painfully hard to rouse herself. She blinked. Was there. . . ? Oh, was there really the faintest of glows in the east? She had been slipping in and out of reality so often that she no longer knew the truth.

But the Other knew without even needing to turn to look, and all at once broke its long silence with a desperate, "But the dawn! Mortal, mortal, what would you have of me?"

That pierced right through the haze of exhaustion. Derwen dared not cease her harping, and her answer was harsh and dry and shaped perforce by the music's shape.

"Three things of you I want."

"Yes, yes, the dawn comes quickly! What are they?"

"In Niall's dun there lies a man entranced,

"And he is Ciaran, Comor's son,

"And it is you who set his trance upon him.

"Break that trance.

"That is my first command."



There was silence save for the singing of the harp. The Other's eyes would have scorched Derwen to her soul had she looked up. But she did not look. The silvery web held, and the eastern sky brightened until the Other cried in helpless rage, "Yes! It is done! At sun's rise he wakes! What else do you want?"

"Do swear by all the Powers of the Night

"That you shall take no vengeance on the man,

"On he or on any of his folk,

"From noble lord to humblest slave."

"Ah! Let fall the net that I may slay you!" shrieked the Other, but Derwen was too weary to flinch. The being swirled in frenzy from shape to shape, but at last is cried, "So be it! They are safe from me!"

"Now hear my third command.

"I bid you ere the rising sun to leave this place.

"I bid you leave this barrow and this land!"

"But I cannot!" It was a wail. "I cannot find the way. Was the creature speaking truth? But there was a path, Derwen knew it from some dimly remembered scrap of lore. And her voice was firm.

"What has been done can be undone.

"Dissolve, and seek the winds between the realms,

"And walk those winds till you are free,

"And leave the human world to humankind.

"Do not return upon your solemn vow -

"Or even such as you shall die!"

There was utter silence after that, broken only by the harp, for perhaps the space of twenty heartbeats. Then from the Other came such a roar of inhuman, impotent rage that Derwen's fingers fumbled on the strings. For an instant, the silvery web of music threatened to fall - but then Derwen recovered, and it was whole again.

It was the Other who broke. "Yes, yes, mortal! I agree, I agree! Let me go, your cruel sun is rising!"

"You will then leave this realm?"

"Yes, yes, I swear it! By the Power of Night, I swear it!"

And Derwen at last let her weary hands fall from the harp strings. "You are free. Leave."

"Oh yes." But the Other did not move. "Oh, mortal fool," it purred. "You are weary. Yes, your mind is weary! For you have had me swear not to hurt the man, you have had me swear not to harm his folk — but you have forgotten to have me swear not to harm you!"

And the Other sprang! Derwen had a terrifying glimpse of blazing fire-eyes, and seized her harp even as she knew there was no time to recreate the music-web. She desperately thrust up the harp as a shield, the bronze and silver strings ringing out boldly, and the Other flinched aside in mid-leap. But its talons caught in the shining strings and tore the harp from her hands even as it fell. Gods, she was helpless! And now the creature had caught its balance and was turning again to attack -

Just as the first rays of the sun cleared the horizon. Oh, they pierced right through and through the Other like so many knives of light. The dazzled bard quickly turned her head away. When she dared to look again, she saw no Other at all.

But where there had been three guardian stones, there now was a fourth, though that fourth was crude and unworked.

"It was true! It was as I had hoped! Oh, I was right, sunlight was fatal to that thing."

At first, dazed and stiff, Derwen could not move. At last, she forced numb limbs to obey her will, and staggered to her feet, bruised and aching. She stared, scarcely believing, at that fourth stone.

Ach, but her harp! She gathered it up, terrified that it had been broken. Ah, but her luck held. All that was bro-

ken were the strings caught on alien talons, and strings could be replaced. Her hands were sore to the point of bleeding, but they would heal.

And Ciaran was safe. He must be awakening even now, surely half-smothered by Ethne's fierce embrace. The Grey Stones slept.

And Derwen stood on weary legs and smiled to watch the lovely rising sun.

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High Tech and Beyond

Technological improvement in TRAVELLER® gaming

®1986 by James Collins

Since high tech level planets can be randomly generated in the TRAVELLER® universe, it's probable that adventurers will, over their many adventures, come across people and ships of TL 16 or higher. yet there have been few rules to cover this aspect of the game. This article gives some guidelines for creating high-TL items.

These guidelines are, for the most part, not meant to be used by player characters in creating their own inventions. Although some characters might be able to obtain some of the smaller "super-tech" items, they should not be able to use the offensive or defensive items given below in their ships without either working for a high-TL government or taking part in extensive smuggling – and either course would be very difficult and extremely dangerous. (Would you want to anger a TL 21 culture?) These rules are given to surprise the characters with something new in referee-generated scenarios.

Tech level change factors

Imagine this scenario: The space hero is sneaking through the hallways of an enemy starship. By his side is his trusty laser, capable of melting steel and killing people with a single blast. But our hero doesn't carry his gun in a holster like most space heroes do, he carts all four tons of it around with him on an air/raft. Luckily, the enemy ship has a five-mile-long reactor that the hero uses to power the weapon. His plan had better not go wrong, lest the five small worlds that sponsored his mission become upset.

No one would ever imagine an epic space hero using one of our modern-day lasers, but the above example shows, in an exaggerated way, the unchanging nature of technological items we see in the TRAVELLER game. With higher tech levels (TLs), items should become more refined, less bulky, and less costly. In Book 4, *Mercenary*, an attempt is made to allow for this. Not only do the plasma and fusion weapons improve in quality depending on their TL, but prices will also drop 5-15% per TL after the introduction of the item This is a start, but many things have not been taken into consideration.

A tech-level change factor (TLCF) is hereby introduced The TLCF IS the percentage of change in an item's mass, efficiency, etc., due to advancements in science To illustrate, let's say that the TLCF equals 10% per TL above the TL of origin, *i.e.*, battle dress bought at TL 15 (2 TLs above the origin of battle dress at TL 13) would have a TLCF of 20%, while battle dress bought at TL 21 would have a TLCF of 80%

This change factor can be applied to either the item's mass, fuel (or power) usage, or price. This alteration allows for much more than just the cost change, and it would replace the price reduction rule in Book 4. A type-A jump drive (origin at TL 9) could not logically be reduced to nothing at a TL 21 world, so 99% (reached at 10 TLs above its origin) is the maximum reduction allowed. The TLCF may, how ever, be split into two or three parts to reduce more than one characteristic, i.e., the above drive bought at a TL 21 world could reduce fuel use by 60% and mass by 60% or price by 90% and mass by 30%, and so forth

Any item that gets a beneficial modifier for being made at a higher TL is assumed to have already used its TLCF. Some items (such as the vacc suit) decrease in weight or improve in quality as they are produced at higher TLs. These items have already used their TLCF for that particular.

Other items make TCLF calculations difficult because of a lack of information on their characteristics. For example, a TL 21 planet wants to develop an improved set of light-weight battle dress for its soldiers. The manufacturers begin work, but nowhere in the rules does it say how much a suit of battle dress weighs, or even what it includes as normal equipment. For our own purposes, we will include all of the devices we can into it. Cost is no object; the job is to decrease the weight of the armor. Since the armor is being built on a TL 21 world, many of the TLCFs will be far over 100%; thus, the price will be reduced along with the weight.

This battle dress is to come in three parts. Part one is the helmet, which connects directly to the brain. Part two is to be worn as a belt, and part three is the armor itself (see table at right).

Several items in this table pose an improbable task: to make them smaller than as they exist today. Oxygen tanks, for instance, can only be made so small. A TL 21 culture, however, might have come up with a respiration system that recycles carbon dioxide into oxygen. Since the body does use up some of the oxygen, this recycling system could not run indefinitely. Then, too, physical armor could be replaced by a kind of force field (so the weight comes from the force-filed generator). Everything on the above list could be made smaller with the proper technology.

High technology is not concerned only with improving existing items. Four extraordinary items are hinted at in TRAVELLER Book 3, *Worlds and Adventures:* disintegrators (at TL 16), matter transports (also at TL 16), artificial intelligence, and anti-matter (both at TL 17). Information on these items appears below, with a few extra super-tech items that seem to follow along with the others.

Disintegrators

Disintegrators are powerful weapons (being converted nuclear dampers) which cause molecular bonds to simply fall apart, disrupting but not truly destroying matter. Disintegrators are bought in 100-ton units and cannot be made in smaller units. They require no hard points for mounting, and no hard points can be placed on disintegrator tonnage. No more than 10% of any given ship may be composed of disintegrator weapon mass. Because of their large mass and multiple firing points, disintegrators are always considered to be bearing on targets. They require 1 crew member per 100 tons to operate, plus a basic crew of five. For disintegrators to hit, the attacking vessel must simply roll higher than the defender's agility minus the attacker's agility. A roll of 2 always indicates a miss. Although the disintegrators always fire as one weapon with but one beam, the following table is for each 100. ton unit's "to hit" chances:

Part one	\mathbf{TL}	TLCF	Cost	Weight
Long-range communicator		140	200 (-40%)	1.5 (-99%)
Inertial locator	9	120	1200 (-20%)	1.5 (-99%)
Hand computer	11	100	1000	.5 (-99%)
Chronometer	4	130	1000 (-99%)	· - ´
Binoculars	3	180	75 (-80%)	1 (-99%)
Infrared sights	6	150	500 (-99%)	-
Light intensifiers	7	140	500 (-99%)	-
Artificial gill	8	130	4000 (-30%)	4 (-99%)
Oxygen (24-hr supply)	5	160	2000 (-60%)	20 (-99%)
Respirator mask	5	160	100 (-99%)	-
Filter mask	3	180	10 (-99%)	-
Total	-	-	5716.1 Cr	.285 kg
Part two				
Grav belt	12	110	100,000 (-10%)	10 (-99%)
Metal detector	6	150	300 (-50%)	1 (-99%)
Cold-light lantern	6	150	20 (-50%)	.25 (-99%
Total	-	-	90,160 Cr	.1125 kg
Part three				
Combat armor	11	100	20,000	10 * (-99%)
Servo-powered limbs	13	80	100,000 *	100 * (-80%)
Total	-	-	120,000	20.1 kg
* – These numbers are never given	in the rule	s.		

than the mass destroyed by the disintegrator, roll again to see what part catches the
remainder of the destructive power.

- (-99%) -	EP used per 100-t unit	Cost in MCr per 100-t unit
_	25	10
(00%)	30	20
(-99%)	35	30
(-99%)	40	40
	45	50
285 kg	50	60

Globe crackers

Black globes take only one energy point damage per 100 tons of destruction caused by a disintegrator, which makes disintegrators practically useless against them. To solve this problem, the globe cracker was invented. If a civilization has no contact with cultures that use black globes, its ships will rarely carry globe crackers. The following table is for globe cracker ratings:

% of ship/rating

30

10

5

4

2

.5

TL

15

16

17

18

19

20

21

TL of disintegrator	Amount destroyed per 100-t unit
16	100 tons
17	200 tons
18	300 tons
19	400 tons
20	500 tons
21	600 tons

A ship with 300 tons of TL **21** disintegrators on board destroys 1800 tons with each attack, using 150 energy points per shot. Damage control is possible on ships hit by disintegrators, but instead of repairing the damage, damage control simply allows the rest of the ship to operate without the disintegrated part. The stricken ship runs at a level of efficiency proportional to the amount of damage it has suffered (*i.e.*, if half of the ship is destroyed, then its rating drops by half). These "repairs" are made at -2.

Unlike normal weapons, disintegrators do not roll damage on the standard damage tables. If the above disintegrator hit any ship of 1800 tons or less, that ship would, of course, be utterly destroyed. The best way to figure the disintegrator's damage is to roll on the critical hit table in TRAVELLER Book 5, *High Guard*, with a few modifications.

2D6

roll Result

- 2 Ship vaporized
- 3 Bridge disabled
- 4 Computer disabled
- 5 Maneuver drive disabled
- 6 One screen disabled
- 7 Jump drive disabled
- 8 Hanger decks disabled
- 9 Power plant disabled
- 10 Fuel disintegrated
- 11 Spinal mount disabled
- 12 Armor disintegrated

If an area is indicated that the targeted ship lacks, then roll again. Whatever part is hit, even if not totally destroyed, is inoperable until repairs are made, regardless of damage control. Keep track of how much of the item was destroyed; if some part of it still remains, multiple hits against it are possible. If the item is less massive

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The amount of energy put into a black globe by a globe cracker equals  $.1 \times 1$  the ship's mass x the rating. The cost for globe crackers is 2 MCr per ton.

### **Disintegrator shields**

When the black globe no longer offered shielding against disintegrators, the disintegrator shield was invented. It absorbs the energy of the disintegrator in the following manner:

TL	MCr/absorber	Amount
		absorbed
16	1	2 tons damage
17	2	4 tons damage
18	3	6 tons damage
19	4	8 tons damage
20	3	10 tons damage
21	3	12 tons damage

Each absorber of a disintegrator shield weighs 1 ton. These shields are unlike any other shield because no ratings exist for disintegrators. The shields use no energy but can only absorb the above amount of damage before they turn off. They cannot afterwards be turned on until 10 energy points have been put into them. This means that these shields cannot usually be fully activated except over a long period of time.

### Anti-matter

Anti-matter and matter, in combination, release enormous amounts of energy. This makes anti-matter chambers viable for use as fuel. At TL 17, an anti-matter chamber's mass is 4 tons per power-plant rating and costs 4 MCr per ton. Anti-matter jump drives do not appear until TL 18, and the fuel tonnage for them is calculated in the following manner: . 001 x the ship's mass x the number of unit jumps made per month.

Note the fact that the mass is not multiplied by the jump rating, but by the number of unit jumps that the builder wishes to make per month. Thus, if he desires 4 unit jumps per month, he could make 1 jump of 4, 2 jumps of 2, or 4 jumps of 1 every month. Anti-matter jump drives also cost 4 MCr per ton. High-TL space ports can "refuel" this jump drive for 10 MCr per unit jump.

### Power jumps

Power jumps can be made with all jump drives built by worlds of TL 19 or greater. These drives can expend twice the normal amount of fuel to go twice as far as they were intended to go. A throw of 4 + (on 2D6), plus half the jump distance attempted, is required to survive. A ship attempting to make a jump-6 with its jump drive of 3 requires a roll of 7+ to survive the jump. If the throw is not made, then the jump drive is destroyed and the ship, not able to return to normal space, continues to travel throughout the universe in jump space. Repair attempts can be made only once per day on the damaged drives. When two repair attempts have been made on the drive, then the ship can exit jump space Remember to chart the lost ship's speed and movement to see where the ship will re-enter the universe.

### Matter transports

Matter transports simply transmit matter from one place to another by converting matter to energy, sending it to a receiver, and then converting the energy into matter again Two types of matter transmitters exist: cargo and personal.

A cargo transmitter may be used only to transport non-living matter. It is made up of the transmitter machinery and the transport zone, usually a room or open floor. The transport zone may hold cargo when not in use. At TL 16, the machinery for a cargo transport is as massive as its cargo capacity It cost 2 MCr/ton of machinery and uses 1 energy point per 10 tons of transported material Cargo transports need one crewman per 10 tons of machinery If living creatures are transmited in a cargo transport, they must throw an 8+ on 2D6 to survive; death 15 immediate

Personal transmitters can transfer one person each Each personal transport (starting at TL 17) has 1 ton of walkways and 1 ton of machinery. This costs 2 MCr per transport and uses 1 EP per person transported A crew of one is required for every 5 personal transports.

Both kinds of transmitters take 30 seconds to transmit material Cargo transports may launch actual starships if the transporter floor is large enough Both kinds of transports can be linked so that ships and crew will appear in the same place at the same time. Transmission through meson screens causes instant death, while transmission through disintegrater shields and black globes is not possible. The range of a matter transmitter is 1000 km per TL,, but direct communication with the "landing zone" is needed to avoid transmitting material into solid objects. A long-range communicator is usually sufficient for this purpose It transmission to an unsurveyed site occurs, use the following table for the results

### 2D6

### roll Effect

- 2-3 3D-damage fall (too high)
- 4 2D-damage fall (too high)
- 5 1D-damage tall (too high)
- 6-8 Safe transmission
- 9-12 Instant death, material destruction (too low)

### Artificial intelligence

Artificial intelligence 15 the ability of a machine to think for itself, the machine

being anything from a robot to a ship's computer. An intelligent ship's computer could take the place of some or all of the crew, as per the following table. CRA stands for "crew replacement ability."

	EP	MCr-	Mass in	
TL	used	cost	tons	CRA
17	1	8	5	5
18	2	10	6	7
19	3	12	7	9
20	4	14	8	11
21	5	16	9	13

These figures apply only to the basic A-I unit. Additional "brain space" equipment may be added to give the unit the ability to act in place of more crewmen, in the following manner.

	MCr	Mass in	
TL	cost	tons	CRA
17	1	1	22
18	2	1	24
19	3	1	26
20	4	1	28
21	5	1	30

As many supplemental units may be added to one main artificial intelligence unit as desired. A hit against the "crew" of a robot ship simply destroys a proportionate part of the ship's computer. Supplemental units enable the ship to have, in effect, a frozen watch (without people or low berths). Such "frozen units" do not require energy points until activated. The main units give the computer a skill level of 6 in all programmed areas of skill.

All artificial intelligence units include small repair robots to handle ship repairs. This allows a damage repair roll on 5 damaged items every turn, as long as the main artificial intelligence unit is not damaged. Two main units do not allow twice this effect, but do allow a +2 on repairs. A normal damage control roll on this unit allows the ship to regain "crew" and the ability to make 5 damage-control rolls. Remember, though, that if the computer is destroyed or disabled, all functions supervised by the computer cease to work.

This article certainly does not cover all aspects of high technology. In fact, it raises even more questions. Are there any TL 22 + worlds? If not, why not? If so, what sort of technology do they have? Is time travel possible to them? Would psionics be understood and welcome on high-TL worlds? Does that mean that all people from these worlds have psionics? Could psionics be used in ship-to-ship combat? What about other dimensions? The questions go on and on, and no article, no matter how large, could answer all of them.

Nevertheless, some guidelines can be established for high-tech inventions, and much can be extrapolated from the existing rules. Worlds with tech levels of 16 + are rarely seen, but once found, these guidelines can make them memorable.

### An Homorable Enemy The ONI agency in CHAMPIONS™ gaming

### © 1986 by Gregg Sharp

An honorable enemy sounds like a contradiction in terms, but there *are* superpowered villains who possess charm, wit, and at least some sense of morality and honor. Though a super-group of honorable villains is hard to find in most heroic roleplaying games, one is presented here for use with the CHAMPIONS[™] game by Hero Games.

### **ONI:** Players' information

The following material may be discovered by heroes from informed sources in worldwide law enforcement agencies or international hero groups. Certainly the Japanese government and news services have their own files on ONI.

ONI was formed in 1972 by the superpowered villain of the same name -asemi-human mutant or supernatural being of vaguely demonic appearance, who has been seen to lift tanks and change the molecular valence of nearly every substance. Oni created his organization as a diversionary tactics during another criminal escapade, but when his agents managed to take in stolen wealth worth double what the agents had cost to hire and train, Oni decided that there was money (as well as prestige) in the super-criminal agency business. In recent years, Oni has discovered that using his super-powers accelerates his own aging process. Thus, he has largely given up an active career in exchange for becoming the desk-bound duty as director of ONI.

ONI is not believed to be a large agency; current estimates are that 250 ONI agents are scattered around the world, the majority of them in the Japanese islands. About 90% of these agents are of Japanese ancestry, reflecting the aims and tastes of Oni himself, who is said to be a fiercely proud patriot despite his criminal record. The main headquarters for ONI are believed to be in the warehouse district of Kitakyushu. ONI's greatest heroic foe is the beautiful technological genius known as Mecha.

Many ONI agents possess a black belt in



some form of martial arts, exactly like the Japanese police with whom they fight. Other important qualifications for becoming an agent include a strong sense of honor and integrity, a high intelligence, and the ability to resist taking lives unless unavoidable. ONI agents may otherwise be male or female, short or tall, etc. Due to the job requirements and activities in which the agents must engage, some degree of athletic ability must be present.

The agents of ONI are trained in methods of stealth, the operation of security systems, demolitions, and survival techniques that apply to any sort of terrestrial environment. An agent meeting the requirements of ONI and having passed basic training is then given The Test. Dropped off by helicopter in northern Japan, without clothes, weapons, or tools, the agent must then make his or her way back to headquarters without killing anyone or attracting the attention of police. After six hours, a squad of cadets (the first rank attained by agents after making it through The Test) sets out to find and capture the trainee. The trainee is equally free to attack cadets, but in either event, killing is frowned upon (though beating and abusing captives may occur). No person who does not belong to ONI may be harmed, including police officers. Failure to adhere to this rule, or allowing police involvement to occur in any manner, brings an automatic death sentence for the trainee or cadet(s) concerned. Failure to return to headquarters after a certain period of time also means death, as does

failure to pass The Test after a second try.

After successful completion of The Test, a agent is ready for most of the duties that ONI agents have. Agents of cadet rank are used as messengers, reconnaissance, or heavy infantry by other criminal organizations, particularly the Yakuze (Japanese underworld). ONI cadets who have distinquished themselves to attract special attention may become cadet supervisors, and then have a chance to enter one of the specialty fields of the agency: the Yari, the Kabuto, the Daisho, or the Gunsen.

**Yari:** These agents are trained in lightning-fast tactics and strategic operations. Yari agents are responsible for breaking incarcerated agents out of jail, commando strikes against banks and offices, and otherwise performing missions worldwide in which speed is of the essence. Agents in Yari Section are taught military planning and tactics, combat vehicle and piloting skills, and all necessary mechanical repair skills.

**Kabuto:** The Kabuto (Helmet) branch has agents who have shown promise with devices and gadgetry of all sorts. Scientists and technicians who have proven themselves as cadets join this branch, and they have been known to develop incredibly exotic devices such as the radar-invisible force-field generator. ONI Kabuto agents are often sent into the field as part of a larger team, to recover or destroy major technological devices.

Daisho: The heavy weaponry division of ONI is that of the Daisho (paired swords). These agents are those who are the finest combat veterans, and they are often called upon to battle foes ranging from the police to super-powered heroes to alien monsters. Daisho are trained in a variety of modern and ancient weaponry, including laser weapons and the deadly Mobile Suits (powered armor dress) recently developed by Kabuto Section. If a national emergency is declared throughout Japan in response to a foreign threat, Daisho agents are likely to be found aiding heroes during the length of the emergency; afterwards, of course, they fall back into their villainous roles.

**Gunsen:** The final division of ONI is that of Gunsen (war fan). Like the war fan, a Gunsen agents appears to be one thing when he is actually another and more dangerous one. Gunsen agents receive special training in stealth, disguises, languages, escaping from captivity, the piloting of all sorts of vehicles, and the basics of international law and law enforcement techniques, making them exceptional secret agents.

Other duties of ONI agents range from sweeping the floors of headquarters to assassinating the leaders of rival criminal factions. ONI agents are well paid, treated fairly by their management, and are allowed vacation pay and sick leave. ONI agents are universally devoted, fanatical, and dangerous in the extreme.



### **ONI: Referee's statistics**

### Oni — Kenti Nodake

VAL	СНА	cost	Cos	Powers	END	100	+ Disadvantages
70 * 30 40 * 20 * 15 20 20 * 6 * 30 * 40 * 10 * 22 * 80 * 75 * OCV: 10 DCV: 10 DCV: 7 PHASES: 2,3,4,5,6,8, 9,10,11,12	STR DEX CON BODY INT EGO PRE COM PD ED SPD REC END STUN	40 60 40 13 10 20 7 -1 11 21 40 0 0 0	5 40 20 20 20 20 <b>7</b> 23 50	Instachange * EC: Atomic Valences 1 EB lightning/beat/ photons 8D6 2 Desolidification 8/ phase 3 Entangle 4D6 Def 4 4 Flash 4D6, 4" radius 5 4D6 NND defense is force field or other radiation defense * Full damage resistance * Gliding 8" * ¼END Cost STR (3) Mastermind (with bases and agents) * — Only in Oni identity (+1/2)	2 2 2 2	15 12 20 20 35 40 20 20 20 20 20 124	Secret Identity Unusual looks * Cannot resist challenges Pathological hatred of oathbreakers Hunted by international hero group, 11 or less Hunted by Japanese hero group, 14 or less Accidental change to human form if uncon- scious, 14 or less Subject to rapid aging as Oni (4x as fast) 2x STUN from heat- based attacks 2x BODY from heat- based attacks 3D6 when instachanging Villain bonus
	(CHA	Cost) 26	51 + 255 (Pov	ver Cost) = 486 (Total Cost	) = (Disa	idvantag	e Total

### **Typical YARI Agent**

VAL	СНА	cost	Cost	Powers	END	100	+ Disadvantages
13 18 13 10 13 11 13 10 8 4 4 6 26 23	STR DEX CON BODY INT EGO PRE COM PD ED SPD REC END STUN	3 24 6 0 3 2 3 0 5 1 12 0 0 0 0	10 20 7 22 13	Martial Arts, 5D6 punch, 6 ½D6 kick Acrobatics, 13 or less Kelvar battlesuit, + 9 DEF Two-way radio in helmet Laser rifle, 2D6 RKA, 30x Yari skill package: Stealth (13 or less); Security Systems, Climbing (12 or less); Wilderness Sur- vival, Demolitions (11 or less)		20	Honorable; will die before betraying word or organization Hunted by Interpol, 11 or less
OCV: 6 DCV: 6 ECV: 4 PHASES: 3,6,9,12							
	(CHA	Cost) 59 -	+ 91 (Power C	Cost) = 150 Total Cost); 155	= Disa	idvanta	ge Total

DOES NOT COMPUTE... SIMPLICITY NOT ALLOWED SQUAWK 4

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YOUR



HARY ...

AL	СНА	Cost	Cost	Powers	50+ Disadvantage	<u>s</u>	201	
10 12 3 3 0 0 8 8 0 0 0 0 0 0 0 0 0 0 0 0 0	S T R DEX CON BODY INT EGO PRE COM PD ED SPD REC END STUN	0 6 0 8 0 0 0 2 0 8 2 0 8 2 0 0	9 Cor 15 5 PRI 12 Scie Eng Phy 13 Kab Stea Der Sur	dgeteering, 13 or less mputer programming, or less E Defense, 10 points entist: Mechanical gineering, Subatomic ysics buto skill package: alth, Climbing, molitions, Wilderness vival (11 or less); unity Systems (13 or s)	35 Hunted by Interpol, 11 or less		O COL	
DCV: 4 DCV: 4 SCV: 3 PHASES: ,8,12	(CH	[A Cost) 32 +	44 (Power Cos	st) = 76 (Total Cost); 85 = 1	Disadvantage Total	A		6
	<b>N</b>				0			
/pical	DAISE	IO Agen	t.	DNI				
ypical	DAISE S T R DEX	IO Agen	t C o		r s Honorable; will die before betraving word			

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Typical	GUNSEN	Agent
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VAL	СНА	cost	Cost	Powers	END	100	+ Disadvantages
15 15 15 10 15 12 18 10 6 3 4 6 30 25 <b>OCV: 5</b> ECV: 4 PHASES: 3,6,9,12	STR DEX CON BODY INT EGO PRE COM PD ED SPD REC END STUN	15 10 0 8 0 15 0 0 0	16 24 22 10 32	Flak suit, + 8 DEF, act 14 or less Semiauto laser carbine, 1 ½D6 K, 30x Martial Arts, punch 6D6, kick 7 ½D6 Acrobatics, 12 or less Gunsen skill package: Detective Work, Security Systems, Disguise, English & Russian without accent, Climb- ing, Combat Pilot, Escape Artist (12 or less); Wilderness Survival, Demolitions (11 or less) + 2 Levels Overall		20 20 35 15	Honorable; will die before betraying word or agency Arrogant Hunted by Interpol, 11 or less Hunted by Japanese hero, 11 or less

### Mecha — Aki Saishokawa

VAL	СНА	Cost	Cost	Powers H	END	100	+ Disadvantages
10 18 10 18 12 15 16 5 3 32 23 OCV: 6 DCV: 6 DCV: 6 ECV: 4 PHASES: 3,6,9,12	STR DEX CON BODY INT EGO PRE COM PD ED SPD REC END STUN	0 24 12 0 8 10 3 0 12 0 0 0 0	23 60 22 15 5 30 33 2 2 1 3	Gadgeteering, 22 or less 50-point gadget pool (45) Find weakness in machines only (+ 1) wit blaster, 18 or less Security Systems, 18 or less Professional skill: artist * Forcefield + 15 PD, +15 ED * * Multipower gun, 66 points u EB 5D6 STUN only, area radius of effect 15: u EB 10D6 STUN only, 15x u EB 10D6 Forcebolt, 35 IR Vision (OIF lenses) * — OAF forcefield belt ** — OAF stungun	h 0 x x	15 15 20 40 35 20 20 5 2	Secret Identity Devoted to truth, justice, and honor Overconfident Hunted by ONI agency, 11 or less Hunted by villain group, 11 or less 2x STUN from sonics 2x STUN from sonics 1D6 Intense magnetic fields Experience spent
(CHA Cost) 76 + 196 (Power Cost) - 272 (Total Cost) - Disadvantage Total							

(CHA Cost) 76 + 196 (Power Cost) = 272 (Total Cost) = Disadvantage Total

Aki Saishokawa, of Osaka, Japan, was one of the millions who grew up reading *manga* (Japanese comic books). A talented comic-book artist herself, she eventually managed to get a job drawing and writing a series of her own which has become enormously popular in Japan (*Love and Bullets*).

Aki received her powers from an unknown source. They were activated as she watched a battle between one of Japan's heroes from the 1960s, Fuji-iro, and a gigantic robotic monster. Fuji-iro was slain in the battle, and from that moment, Aki found that she had the ability to comprehend the nature of machinery on an intuitive level. This understanding allows her to detect the function and weaknesses of any electronic or mechanical device she encounters, and she can modify the device accordingly.

Mecha quickly became a concern of ONI after she disabled one of their attack robots with a homemade laser system, during a supposedly "secure" bank robbery. Two Daisho agents were dispatched in Mobile Suits to apprehend her, but she destroyed one agent's suit and crippled the other, again using homemade equipment. Mecha has become increasing more dangerous to the ONI agency over the years, though she has rarely worked with other heroes. Mecha is an excitable and enthusiastic heroine, though her easy successes against ONI in the past have made her overconfident (but not egotistical).



### Age and aging in STAR FRONTIERS[®] gaming

### by Peter C. Zelinski

One question unanswered by the STAR FRONTIERS® rules is this: What happens when a character gets old? Average lifespans are given for all four player character races, but nothing is said about the effects of aging and growing up

This is unfortunate, for aging adds to the fun and realism of the campaign. What is the point of turning to the aged for advice when they are no wiser than the

young? How realistic is a 230-year-old Dralasite who can still bench-press 145 kilograms? What about a 150-year-old Vrusk who can dodge missiles just as well as the time he was knee-high to a winged ripper? True, such examples are always possible, but they should not be the norm.

Presented in the text below is a solution to the problem. Players of the AD&D® game will recognize its aging system as the inspiration and source of reference used in compiling this article.

Middle							
Race	Mature	Aged	Old	Venerable			
Dralasite	25-75	76-115	116-175	176+			
Human	20-60	61-90	91-140	141+			
Vrusk	18-50	51-80	81-125	126 +			
Yazirian	14-40	41-60	6-100	101+			

NOTE: Time is given in Galactic Standard Years throughout the article. One GSY is about 91% as long as one of our Earth years.

### Starting ages

Before a player character enters a STAR FRONTIERS campaign, his starting age must be known.

Race	Starting	Age
Dralasite	d10 + 24	yeaı
Human	d10 + 19	yeaı
Vrusk	d10 + 17	yeaı
Yazirian	d10 + 13	year

NPC starting ages need not be so restricted. An NPC Human adventurer could stow away on a star freighter at age 14 or give up a cushy desk job in favor of a daring life in space at 43.

### Age brackets

When a character enters a certain age bracket, his ability scores must be modified according to the instructions given in the age categories table below. This is not to say that all Humans receive additional strength and stamina along with their presents on their twentieth birthday. Instead, ability score modifications are a simulation of the effects of gradual maturity, with the resulting benefits or deterioration.

Modifications due to age are as follows: Mature: Add 5 to STR, STA, INT, and LOG scores.

Middle-Aged: Subtract 5 from STR and STA; and, add 5 to INT and LOG scores. Old: Subtract 10 from STR, STA, DEX,

and RS; and, add 5 to INT and LOG scores.

Venerable: Subtract 5 from STR, STA, DEX, and RS; and, add 5 to INT and LOG scores.

No young-adult bracket is given because, unlike in the AD&D game, no STAR FRONTIERS PC can ever fall into this category (see starting age above).

### Death due to aging

Except in a very long campaign, the prospect of a PC dying of natural causes is not something to worry about, because of the long lifespans of all four races. Nonetheless, when a player rolls up a character, the referee should randomly determine the age at which that character will die and keep it a secret from the controlling player. This may prove useful if the character is unnaturally aged by technological devices or processes, or by disease or infection. The maximum-age table is given below. The results are based upon the average lifespan figures given in the Alpha Dawn Expanded Game Rules.

Race	Age at Death
Dralasite	195 + 10d10
Human	156 + 8d10
Vrusk	136 + 7d10
Yazirian	107 + 6d10

### The Marvel-Phile

### Up to our navels in little blue geeks

### by Jeff Grubb

I want the world to know this column is being written under duress. I've been hipdeep in the MARVEL SUPER HEROESTM Advanced Set for some time now, and I strongly considered telling Roger that I was going to skip a month, so he could run a small note in the ARESTM Section saying that I've been sent to Xavier's Home for the Woozy, in Westchester County, New York

About the time I reached this conclusion, Roger bounced into my office, wearing his Nightcrawler[™] outfit. "Really looking forward to this month's Marvel®-Phile!" he chirped as I reached for my water pistol. "This is an important one!"

"Important one?" asked the bleary-eyed designer (That's me.)

"The April Fool's issue! You've got to do your Silly Characters of the Marvel Universe™ Column!"

"Sorry," I said, leaning back "There is nothing silly about the Marvel Universe"

"What about Unlimited Class Wrestling? Aunt May[™] as the herald of Galactus[™]? The Thing[™] and the Torch[™] wearing Beatles wigs? Assistant Editor's Month? And where do those cute little [™]s come from?"

The conversation went on in this tone until my blue-furred editor spotted the Nightcrawler Limited Series on my desk "Oh, NEAT!" he cackled, leaping upon the issues and hanging upside down by his tail to read them "This would be perfect! How about doing the inhabitants of Kitty's Fairy-Tale Dimension?"

(The dimension to which he referred in his glee was a parallel universe in which modified dopplegangers of the X-Men[™] existed in a fantasy setting. Kitty Pryde[™] had described some of those inhabitants and their adventures in bedtime tales she told to the young Illyana Rasputin (later known as Magik[™]). Years later, Nightcrawler accidentally traveled to that dimension, proving the inhabitants were more than just fairy-tale beings.)

I shrugged my shoulders. Never argue with an editor who can teleport in a sulfurous cloud. The characters below appeared first in *X-Men*TM #153, and later became the core of the four-issue Nightcrawler Limited Series. Any similarity between these characters and a certain group of mutant heroes is pure and simple coincidence. Really.



### BAMFSTM Bamfs don't need no stinkin' badges!

Fighting: GOOD (10) Agility: GOOD (10) Strength: POOR (4) Endurance: REMARKABLE (30) Reason: POOR (4) Intuition: GOOD (10) Psyche: TYPICAL (6)

Health: 54 Karma: 20 Resources: Not applicable Popularity: 2

### Known powers:

TELEPORT: The Bamf race has the ability to teleport up to a mile in distance with Incredible ability. They normally only teleport to areas in line of sight or those that are known to them. They cannot carry others with them when they teleport, however. Bamfs always have the initiative when they teleport, and their 'porting leaves behind a cloud of foulsmelling smoke

**The Bamfs' story:** Bamfs are short, cute, blue-furred, oversexed natives of a dimension located not far enough away from our own. The Bamfs are hedonists whose attraction for the opposite sex is only matched by their use of the worst makeout lines in their dimension (or any other). There are Cabbage-Patch-sized male Bamfs, and slightly taller and more slender female Bamfs, but both have the same abilities and personalities Female Bamfs dislike males ones, but they *love* Nightcrawler.

Bamfs were first encountered by Pirate Kitty™, but later were rediscovered by Nightcrawler of the Marvel Universe. They regard the tall Kurt as "Daddy Bamf" because of his size, though no relationship between them has yet been established.

### **MEAN**TM

### The Fiend With No Name

Fighting: REMARKABLE (30) Agility: REMARKABLE (30) Strength: GOOD (10) Endurance: INCREDIBLE (40) Reason: POOR (4) Intuition: TYPICAL (6) Psyche: GOOD (10)

Health: 110 Karma: 20 Resources: Beer Popularity: 0

### Known powers.

CLAWS: Mean has extremely strong claws similar to those used by WolverineTM, and he may use them singly or all at once to inflict up to Excellent damage on the Hack-&-Slash column. The material strength of these claws is unknown, but is likely at the Monstrous level.

UNDERGROUND TRAVEL: Apparently by twisting himself around in a rapid fashion, Mean can travel underground at five areas per round. He can only travel through normal soil and material of less than Typical material strength, and it is assumed he needs a running start to do this.

BEER: Mean always appears with a sixpack of beer under one arm He does not part with it until it is consumed, which he does by tossing the cans in his mouth and crushing them. His Fighting is only Excellent if hampered by carrying his beer, but he may spit out the crushed empty cans as missile weapons with a range of three areas, firing up to three of them per round and inflicting Good slugfest damage with each.

**Mean's story:** The origin of Mean ("I'm MEAN!!!"), also known as the Fiend with No Name, is unknown, but the creature. made its first appearance in Kitty's fairy tale when he chanced upon the adventurers and joined them on a quest. The hero



crawler later encountered Mean in his travels through that dimension. Mean is foul-tempered but easily cowed by things much larger than he is, and he is a lot more bluff and bluster than true menace. His best-remembered quote is, "I'm the BEST at what I do! And what I do BEST is guzzle b—uh, COMMIT MAYHEM!"

### PIRATE KITTYTM

Fighting: REMARKABLE (30) Agility: REMARKABLE (30) Strength: TYPICAL (6) Endurance: EXCELLENT (20) Reason: EXCELLENT (20) Intuition: GOOD (10) Psyche: GOOD (10)

Resources: Excellent Popularity: 15

**Known powers:** Pirate Kitty, unlike her counterpart, Kitty Pryde, has no superhuman powers.

**Talents:** Pirate Kitty is an exceptional swordswoman, and she has a Fighting level of Incredible with a sword (using the flat side of the blade for slugfest damage). She is also a skilled acrobat (agility of Incredible when dodging). She has the services of Lockheed[™] the Dragon on call (the BIG Lockheed described below).

SAILING SHIP: Kitty's normal mode of transportation is by means of her pirate ship the sea rover Abdul Alhazred. This four-masted galleon is capable of making three areas a round with a good wind and is manned by a trusted crew who can look after things when Pirate Kitty is not around

**Pirate Kitty's story:** Pirate Kitty is one of the premier adventurers of her world, Lighting against injustice, righting wrongs, having adventures, and generally doing that heroic type of stuff. She is aided in her adventures by her true love and best friend, Colossus[™] (whose stats conform exactly to those of the X-Man of the same name, including his ability to transform into osmium steel) Pirate Kitty is similar in appearance and temperament to the X-Man Shadowcat[™], Kitty Pryde, but is several years older than her counterpart.

### LOCKHEED THE DRAGONTM Big Lockheed

Fighting: EXCELLENT (20) Agility: EXCELLENT (20) Strength: INCREDIBLE (40) Endurance: UNEARTHLY (100) Reason: TYPICAL (6) Intuition: EXCELLENT (20) Psyche: GOOD (10)

Health: 180 Karma: 36 Resources: Any that fit within his jaws Popularity: 10

### Known powers:

FLIGHT: Lockheed can fly up to 15 areas per round while comfortably carrying a



large number of passengers on his back He can also hover in mid-air.

FLAMING BREATH: Lockheed has a firey breath that can deliver Monstrous damage up to five areas away. He only uses this breath in emergencies or when prodded (poked hard with a sharp object).

**Lockheed's story:** Lockheed is the last of the giant supersonic dragons (he resembles an SR-71 Blackbird), and he has had several adventures with Pirate Kitty. Lockheed is a devout pacifist and usually seeks to save his hide if possible. Lockheed speaks with an Irish accent, and he negotiates before taking on any riders. Those negotiations usually include a promise that he won't be endangered. This Lockheed should not he confused with the small dragon pet of the same name, owned by Kitty Pryde.

### SHAGREENTM Alien wizard

Fighting: GOOD (10) Agility: GOOD (10) Strength: GOOD (10) Endurance: REMARKABLE (30) Reason: EXCELLENT (20) Intuition: EXCELLENT (20) Psyche: INCREDIBLE (40)

Health: 60 Karma: 80 Resources: Good Popularity: -5

### Known powers:

MAGICAL ABILITIES: Shagreen has normally Excellent magical powers, but he is limited under normal circumstances to extra-dimensional energies and those requiring rituals. Using those energies, he has displayed the following powers: * Create stone guardians with the following abilities: F A S E

EXCE REMA MONS MONS

* Summon the Dreadwings, a flock of demonic birds with the following stats



F A S E GOOD TYPI TYPI GOOD * Create Dark Bamf: This spell melds the physical forms of many captive Bamfs into an all-powerful superbamf that is under Shagreen's control Dark Bamf is. . . well, not too bright Dark Bamf's stats are: F A S E

GOOD GOOD MONS MONS Ι Р R POOR POOR POOR * Cast anti-teleport spell By using this ritual, Shagreen protects an area of about one mile in radius from all teleporters. This is particularly effective against Nightcrawler and the Bamfs. No teleportation of less than Unearthly power may take place within the area.

STAFF OF POWER: All of Shagreen's longterm spells are maintained through his staff of power, and its destruction will result in their negation The staff of power is also either the source of or unique channel for Shagreen's personal and universal energy powers With this staff, Shagreen can cast up to Amazing-strength mystical bolts to stun his opponents in a three-area range, as well as surround himself with an Amazing-strength mystic shield The power in the staff also allows Shagreen to teleport with Monstrous ability and to take large numbers of beings with him when he does Certain mystical materials are immune to the effects of the staff The Staff is of Poor-strength material.

**Talents:** Shagreen is skilled with sharp weapons like swords, gaining a one-column shift to the right with them.

**Shagreen's story:** Shagreen is a wizard of an alien dimension, and it is not known if he is unique or it there are others of similar appearance and powers Shagreen looks like a humanoid shark, and his temperament befits his appearance. When Shagreen first encountered Nightcrawler, the wizard had two objectives: to gain more power from extra-dimensional beings by sacrificing them (his candidate for the honor was the beautiful Jinjav Sabree, who was rescued by Nightcrawler) and discovering how to teleport. Shagreen apparently tell to his death from the top of a squid-like balloon ship after a swordfight with Nightcrawler.

Nightcrawler soon afterwards fell into the dimension containing Kitty's fairy tale, where he discovered Shagreen was alive and well and kidnapping female Bamfs. It appears that Shagreen has learned to teleport in some arcane and unrevealed fashion and he was still concentrating on gaining greater power through sacrifices. Nightcrawler, aided by Mean, the Bamfs, Big Lockheed the Dragon, Pirate Kitty, Colossus, and Windrider[™] (an extra-dimensional equivalent of Storm[™], with similar powers) put the kibosh on this plan. Shagreen was left in the dimension of Kitty's fairy tale, under the custody of Pirate Kitty and Windrider.

[It might interest the readers to know that I did enjoy the Nightcrawler Limited Series, but that I do NOT own a Nightcrawler suit It might also interest the readers to know that Jeff Grubb watches Punky Brewster religiously, and that he refuses to play in any MARVEL SUPER HEROES game unless he can be the Beyonder™. Join us next month for another edition of The Marvel-Phile. — Roger, the Road Editor]



### **More Mutant Fever**

Mutant and "pure strain" GAMMA WORLD game diseases

### by John M. Maxstadt

[In last month's ARES™ Section, we presented the first part of John Maxstadt's article on GAMMA WORLD® disease, giving information on how to use the health factor post-holocaust campaigns. Part II focuses on specific illnesses that can be used in the game.]

In my campaign, I use sixteen different diseases adapted from maladies afflicting humans or other creatures in the past and present. Eight of them are climate-specific – they only occur in cold or warm climates, respectively – so only twelve can be encountered in any given area. When I need a disease at random, I roll a d12 on the following table:

### Die

### **Roll Disease**

- 1 Bird fever
- 2 Black rot
- 3 Bone plague
- 4 Cowpox/Laughing death
- 5 Dancing sickness/Monty Zoomer's Revenge
- 6 Foaming madness
- 7 Hidesuckers
- 8 The Itch
- 9 Muscleworms
- 10 Sneezles/Walking death
- 11 Spotted fever/Yellow fever
- 12 Tapeworm

The diseases separated by slashes are climate-specific; those in front are arctic and temperate, those after are tropical and sub-tropical.

Specific descriptions of each disease follow. In all cases, round fractions up when calculating disease effects on character statistics. Note also the use of CN checks, as described in last month's article.

**Bird fever** is a chlamydial infection that birds and humans/humanoids can catch from the environment through the air (20% chance of infection if contacted by a bird, 5% if by a human or humanoid from contact with filth (bird droppings – 50% chance of infection for birds, 20% for humans/humanoids), or from touching or being coughed on by an infected creature (B 80% chance H/H 25%). If the character becomes infected, symptoms appears in 1-3 days, including fever, chills, a dry cough, and loss of appetite, resulting in the temporary loss of one point of CN.

If the disease becomes serious (B 85% chance, H/H 55%), it progresses in one week to lung congestion and severe weight loss (costing more 3 points of CN and reducing MOVE and PS to half, temporarily), and feather or hair loss (-3 CH, loss of flight ability for birds) which becomes permanent 25% of the time Terminal cases (B 55%, H/H 30%) die in three more weeks. Enforcing 24-hour bed rest, warmth, and ingestion of some syrupy substance to inhabit coughing have a 35% chance of curing the disease at each stage (before the infection takes hold, before it becomes serious, and before it becomes terminal) Antibiotic C cures bird fever completely, but it won't restore permanently lost hair or feathers.

**Black rot** IS a fungal infection that plants and herbivorous mammals (horned and hornless) can catch from the environment through water (plants 10%, herbivo-



rous mammals 5%) or from touching or eating infected plants or animals (P 80%, HM 75%). In plants, the disease causes blackening that begins at the base and proceeds upwards, reducing the plant's CN to half; serious cases (75%) are always terminal in plants, bringing death in foul weeks. Mammals show symptoms one week after infection - nausea, vomiting, and loss of appetite resulting in temporary loss of 2 CN. Serious cases (60%) progress in two weeks to a gradual blackening of the body, beginning at the mouth, and greatly increased appetite (treat as the increased metabolism mutational defect). Terminal cases (80%) are fatal in ten days, when the blackness has covered the victim's entire body.

Emetic and purgative herbs have a 75% chance of curing the disease at each stage. Non-medicinal fungicides ingested by mammals or sprayed on plants have a 90% curative chance, but also act as intensity 6 poison in mammals. Antibiotic A cures infected mammals, but not plants. Black rot is only contagious at the serious and terminal stages.

Bone plague is a staph infection that all player-character types (human, humanoid, and animal) can catch by touching (5%) or eating (75%) an infected creature. Symptoms appear in one week (or one day, if caught by ingestion), and include a general run-down feeling and a rubberiness around the joints (-1 PS and DX temporarily). Serious cases (45%) lose those points permanently, and continue to lose one point of each per week (permanently) until the disease is cured, or all PS or DX is lost, at which point the character is immobile, all his bones having been softened to flexible cartilage. The disease is never fatal, but this is cold comfort to the permanently immobile character who is lying there waiting for predators to gather. There is no home remedy for bone plague. Antibiotic B cures it, but won't restore any permanently lost DX or PS.

**Cowpox,** a viral infection, is hereditary (95% chance of catching it from an infected parent; PCs are otherwise immune) and contagious by touch (85%) among hoofed, herbivorous mammals. Its effects are no more than a painless, bright red rash that is most prominent on the face (-1 CH). It is never serious or fatal to

such beasts. The rash persists until the disease is cured with Antivirin B, hut many herbivores opt to keep the disease, as it tends to discourage predators.

Carnivorous mammals, humans, humanoids, and primates can also catch cowpox by touching (CM 10%, H/H/P 30%) or eating (CM 80%, H/H/P 40%) an infected creature. Symptoms appear two weeks after infection (one if caught by ingestion), and begin with headaches and a mild fever, developing into an itching rash (temporary loss of 1 CH, 2 CN, and 3 DX). In serious cases (60%), the fever rises one week later, causing occasional delirium and a powerful thirst (-2 CN, IN, and MS temporarily, -1 CH and CN permanently). Terminal cases (40%) die of fever and dehydration in another week.

Washing with soap and water is 40% effective in preventing infection by touch. Withholding excessive amounts of water and applying wet compresses to control the fever and the scratching are 40% likely to cure the disease at the serious and terminal stages. Antivirin B cures cowpox, but the scars and pock-marks from serious cases remain, and permanently lost CH and CS are not restored.

Laughing death is a bacterial infection that all animal player-character types except reptiles can catch from the environment through water (humans/humanoids/primates 15%, other mammals 10%, birds 15%), from touching or breathing too close to infected creatures H/H/P 25%, M 15%, B 20%), or eating infected beings (H/H/P 35%, M 35%, B 40%). Symptoms appear in six days (two days if caught by ingestion), and include headaches and blurred vision (-2 to hit temporarily). Serious cases (H/H/P 75%, M 60%, B 75%) develop a high fever, heavy perspiration, and cramps, which are totally disabling by the end of two days. Over the next five days, the infected creature has involuntary facial grimaces and respiratory paroxisms that faintly resemble laughter, and 2 points of CN are permanently lost in this time. Terminal cases (85%) die after 1-4 days of Coma.

Enforcing 24-hour bed rest and the administration of lots of warmth and fluids have a 20% chance of curing laughing death at each stage. Antibiotic B cures it, but won't restore permanently lost CN. Laughing death is only contagious in the serious and terminal stages.

**Dancing sickness** is a strep infection that all animal player-character types can catch from the environment through water (human/humanoid 30%, others 20%), or from touching (H/H 50%, others 35%) or eating (H/H 75% others 70%) an infected creature. Symptoms appear in two weeks, including awkwardness and a slight tremor (loss of 2 DX and ½ MOVE temporarily), with occasional fits of jerky, uncontrollable motion that allow no attacks and raise AC by two points. Roll a d10 every march turn, a 10 indicating a seizure; seizures last 1d6 search turns, and each one has a 1% chance of costing 1 point of PS permanently. Dancing sickness never becomes serious or terminal It goes away in 5-12 weeks (d8 + 4) or when the character takes Antibiotic B. There is no other remedy or cure, but paralysis, sedation, or tranquilizers stop any given seizure before it can do permanent damage

**Monty Zoomer's Revenge** (so called after a mysterious and long-forgotten deity) is a bacillus infection that any player-character animal can catch from the environment by drinking impure water (90%). Symptoms appear in a few hours, and consist of nausea and severe diarrhea Characters are at -4 DX and ½ MOVE at best, with frequent periods of complete incapacity (2-8 times per day for 2-20 minutes each). The disease never becomes serious or terminal, but the symptoms persist until the character fasts for two whole days, consuming nothing but clean water, or takes Antibiotic B.

Foaming madness, a viral infection affecting all mammals (including humans, humanoids, and primates), is caught by eating, biting, or being bitten by an infected creature (humans/humanoids/ primates 45%, herbivorous mammals 25%, carnivorous mammals 80%) Symptoms appear in tour days and include fever, irritability, and mood swings from manic to depressive (-1 IN, -2 MS temporarily) Serious cases (H/H/P 85%, HM 60%, CM 95%) suffer intense thirst, gagging, and choking, and foaming at the mouth in the next 2-3 days. Herbivores become lethargic (all ability scores except CN halved, no attacks possible). Carnivores run mad (GM takes control of the character, which then behaves like a mad dog) Humans, humanoids, and primates have a 60% chance of madness and a 40% of lethargy.

Serious cases are always terminal, with victims drowning in their saliva in 3-10 days unless Antivirin B is administered (which must be done by force or trickery of the patient is mad). It a character is bitten by an infected creature, infection can be prevented 75% of the time by washing the wound with soap and water within an hour, and it can be prevented 95% of the time by sterilizing the wound (with fire, pyrokinesis, or disinfectants such as those found in a medi-kit). There is no other effective home remedy Antivirin B is a total cure at any stage of the illness.

**Hidesuckers** are parasitic copepods (crustaceans) that infest the skins of scaly creatures such as fish and reptiles. The larvae are free-swimming and can be contacted through the environment by immersion in water (10%) or by swimming too close to an infested creature (60%) or its lair (70%; this should be a set encounter not a random one) They can only he contacted on dry land by prolonged and very close physical contact, such as grappling with an infested creature The hidesuckers then get under a victim's scales, being inaccessible to tweezers and the like) and begin sucking vital juices in two days (producing -2 CN and -3 DX as long as the parasites remain)

The infestation is never serious or terminal, but the hidesuckers won't leave unless killed. Heat and fire attacks (including lasers, but not blasters or vibro weapons) have a 5% chance per point of damage done to the infested creature of killing the parasites. Antiparasitic is only 65% likely to cure per application, since the parasites are external

The Itch is a fungal infection that only humans and humanoids can catch, by touching infected humans or their gear (45%). Symptoms appear the next day, including flaking and cracking of the skin all over the body (particularly where the initial contact occurred) and a horrendous itch (-3 DX, -2 CH, -1 to hit in combat). Afflicted characters are unable to function more than half-dressed (for example, in vest, shorts, and boots). If more fully dressed or in any hind of armor, the character won't be able to think about anything but the itching. Serious cases (10%) lose one point of CH permanently from scarring if the infection lasts a week or more. The Itch is never terminal – it only feels that way sometimes - but it won't go away unless the character can refrain from scratching for a full week. This takes will power, a check vs. MS x 2 may be made every week. Use of unguents such as cocoa butter or coconut oil allow a check vs. MS x 4, and high-tech anti-irritants allow a multiple of 8. Antibiotic A cures the disease but won't restore permanently lost CH.

**Muscleworms** are tiny, parasitic worms that can infest the muscle tissue of any player-character animal. They enter the body as microscopic eggs, and can be contacted from the environment in food or water (humans/humanoids/primates 10%, carnivorous mammals 5%, herbivorous mammals 20%, birds 5%, reptiles 15%) or by eating an infested creature (H/ H/P 55%, CM 80%, B 60%, R 65%). The eggs hatch in three days, and the worms lodge in the skeletal muscles, making them weak and sore (-1 DX, -1d4 PS while the worms remain). Serious cases (15%) continue to lose PS at the rate of one point per week, taking on a skin-and-bones appearance, until PS is one-third normal (round up fractions to a minimum of 3). Terminal cases (75%) continue to waste away at the same rate, and die when they reach 0 (zero) PS.

Purgative herbs known to Healers and certain grens have a 65% chance of getting rid of muscleworms, and Antiparasitic kills them immediately. Once the worms are gone, lost PS is regained at one point per week of rest or moderate activity. Infested creatures are only contagious at the serious and terminal stages.

Sneezles was the common cold, but it mutated into something rather more seri-

ous. Any player-character animal can catch it from the environment through the air (10%), or from being coughed or sneezed on by an infected creature (80%). Symptoms appear the next morning, beginning with a raw throat, followed in the same day by an exaggerated version of the familiar running nose, watery eyes, coughing, sneezing, and muscle aches (-1 DX, -2 CN, -3 to hit, -3 CH temporarily). Serious cases (75%) proceed a week later to fever and lung congestion, followed by racking coughs and hemorrhaging of the lungs (becoming totally incapacitating, with a loss of 1-3 CN). Terminal cases (75%) die of respiratory collapse in two more weeks.

Enforced 24-hour bed rest, lots of warmth and liquids, and a syrupy mixture to inhibit coughing are 75% likely to cure sneezles before it becomes serious, but only 35% after. Antivirin B is a total cure, but it won't restore permanently lost CN.

Walking death, a viral infection, can be caught by any player-character animal who touches (75%) or bites or eats (90%)an infected creature. Symptoms begin a day later, including a sore throat, headache, and a mild fever (-1 CN, -1 MS temporarily). In serious cases (60%), the fever becomes more severe over the next three days, followed by dehydration, drowsiness, and finally a comatose sleep at the end of another three days (-1 IN, -1 CN, -2 MS permanently). After two days, the sleeper awakens. If the case is not terminal, the character regains all points temporarily lost and suffers no further ill effects.

If the disease is terminal (70%), the character appears normal but remains very hot to the touch. His mind is then totally under the control of the disease, which he actively seeks to spread by touching other characters and creatures. The disease uses whatever intelligence the character has left, so the character can walk and talk normally without appearing strange or zombielike. However, the character cares about nothing but spreading the disease — ignoring, for example, danger to his own life and limb. This continues until the fever totally consumes the body, two weeks later.

Washing with soap and water within an hour of being touched by an infected creature has a 90% chance of preventing infection. Enforced 24-hour bed rest and the ingestion of large quantities of salt water (not ocean water) have a 30% chance of curing the disease before coma. During the coma, chilling the body below 5-C has a 25% chance of curing the illness, but a 10% chance of killing the character outright. Antivirin A cures the disease, but cannot restore permanently lost IN, CN, or MS. If Antivirin A is administered after a terminal case wakes from coma, it simply kills the character, since the disease is the only thing animating the body at that point. Walking death is contagious only at the terminal stage.

Spotted fever, a rickettsial infection affecting all animal player-character types, can be contacted from the environment through small insect bites (which characters won't notice and won't be able to prevent - 15%), or by touching or breathing close to an infected being (humans/ humanoids/primates 50%, other mammals 40%, birds 35%, reptiles 30%), or biting or eating one (H/H/P 80%, M 70%, B 60%, R 60%). Symptoms appear five days after infection, beginning with sudden high fever, nausea, stiffness, and muscle pains (-2 CN, -3 DX, -1 PS temporarily), and bright purple splotches on the skin (-2 CH, unless the character is already purple). Serious cases (70%) skip these symptoms and go directly to a raging fever, with chills and the characteristic splotches, that is totally incapacitating for a whole week (-1 CN permanently). Terminal cases (H/H/P 30%, all others 25%) slip into coma and die one week later.

Enforced 24-hour bed rest, ingestion of large quantities of salt water (not ocean water), and frequent immersion in cool, clean water have a 50% chance of curing the disease at any stage. Antibiotic C cures it, but won't restore permanently lost CN.

Yellow fever, a viral infection, is similar to spotted fever in most ways. It can be caught by all animal player-character types from insect bites, or contact with or ingestion of infected creatures (see spotted fever for chances). The symptoms at every stage are similar to spotted fever, but the purple splotches are replaced with a distinct yellowing of the character's gums, tongue, and the whites of his eyes. The timetable and progress of the disease is also similar -70% become serious, but only 10% of the serious cases become terminal. Rest, salt water, and cool baths are similarly effective, but the correct technological medication is Antivirin A.

Tapeworm is a parasitic worm which gets into the body much in the same way as muscleworms (see above): from the environment through food and water (H/ H/P 20%, CM 10%, HM 60%, B 5%, R 50%), or by eating an infested creature (H/H/P 75%, CM 80%, B 35%, R 75%). The worm hatches and makes its home in the character's digestive tract, causing slight but increasingly distressful nausea and appetite loss over the course of eight days, during which time the worm attains its full size (-3 CN, 1/2 PS and MOVE to PC). The infestation is never serious or fatal, but the symptoms persist until the worm is killed or dislodged.

Drinking poison has a 5% chance of killing the worm per poison intensity level. Purgative herbs similar to those used to combat muscleworms are 65% likely to remove a tapeworm. Antiparasitic kills and dissolves the worm immediately. The use of laxatives has a 20% chance per day of working, though it also means the character cannot adventure during this time.

### Using these diseases

As an example of how the above diseases work, let us say that a mutated baboon bites a plant with bacterial symbiosis in combat, and the GM determines that the plant carries laughing death. The infection roll for a primate biting or eating the plant is 35% — the GM rolls a 27. The character's CN is 12, so his CN check is against 48, and the player rolls a 62. No treatment has yet been attempted, so the character has caught the disease.

When the symptoms set in, the party is aware that the character is sick, but, since none of them has any special medical knowledge or much experience with disease, they do not know what he has or what to do about it. They take their best guess and keep him still and warm, and the GM allows them a 15% chance for applying two-thirds of the correct treatment, but the player rolls a 40. The chance for the disease to become serious is 75% for a primate, and the GM rolls an 18. The character again fails his CN check (with a 77) and becomes disabled with fever, cramps, etc.

Bed rest has become unavoidable, and a passing sleeth has advised the party to force fluids, so the treatment roll becomes 20% — however, the player rolls a 52. Party members try unsuccessfully to locate a supply of Antibiotic A. The chance for the disease to become terminal is 85%, and the GM rolls a 31, but the character makes his last CN check with a 12, so the disease does not become terminal. The symptoms persist for another week, after which the character returns to normal, except for the two points of CN which were permanently lost.

It may be seen that, as the dice rolls mount up, the chances of a character actually dying from a disease are rather small (only 28% in the worst case – a carnivorous mammal with average CN bitten by a creature with foaming madness and not given any sort of treatment afterwards). They are certainly better than the chances the same character would have of surviving being radiated by a blaash.

Plants with bacterial symbiosis can carry either bone plague, laughing death, dancing sickness, Monty Zoomer's Revenge, foaming madness, sneezles, spotted fever, or yellow fever. The mutation does not enable plants to coexist with parasitic worms or crustaceans. Almost all plants are susceptible to black rot themselves. Walking death is an intelligent disease with its own preferred mode of contagion. Bird fever and the Itch would not be significant advantages to the plants, since predatory birds and the humans that are left do not eat many plants. Cowpox would actually be a liability to the plant, as it benefits most kinds of herbivores.

### AGGIECON 17, Apr. 3-6

This convention will take place at the Memorial Student Center of Texas A&M University. Guests of honor include George R. R. Martin, Orson Scott Card, and Frank Kelly Freas. Howard Waldrop will be the toastmaster. Scheduled events include panels, readings, movies, a masquerade, an auction, and a banquet. Registration fees are \$13. For more details about this convention, contact: AggieCon 17, Box J-l, Memorial Student Center, College Station TX 77844, or telephone (409) 845-1515.

### ARCHON II, Apr. 4-5

This convention will take place at the Apollo High School cafeteria in Glendale, Ariz. Scheduled events include computer gaming and displays, a variety of roleplaying games, and a dealer's table. Movies will be shown both nights. Prizes will be given to the grand champions and runnersup of each tournament. Registration fees are \$3 for Friday attendance, \$4 for Saturday attendance, and \$6 for two-day attendance. For more details about this event, contact: Mr. S. Hartwich, 5204 W. Laurie Ln., Glendale AZ 85302, or telephone (602)934-8937.

### COASTCON, Apr. 4-6

This science-fiction, science-fact, fantasy, and gaming convention will be held at the Coast Coliseum and Convention Center in Biloxi, Miss. Ben Bova, former editor of OMNI magazine, will be guest of honor. Other special guests will include Terry Brooks (author of the Sword of Shanara series of novels), Howard Chaykin (creator of the American Flagg comic), Leslie Zahler (comic book editor and writer), Daryl Murdock (fantasy artist), and Larry Brom (creator of Sword and the Flame gaming system). Members of the Jackson County Astronomical Society and the staff of STARS Planetarium will conduct "tours" of Halley's comet during the convention. Registration fees are \$20. For more information, contact: CoastCon, P.O. Box 1423, Biloxi MS 39533.

### GAMES PLUS DAY, Apr. 5

To be held at the Mount Prospect Holiday Inn, this gaming convention will feature numerous events, including FASA's Battledroids and Starship Combat Simulator and a large AD&D® tournament. Registration fees are \$5. For more details, contact: Games Plus, 20 W. Busse *Avenue*, Mount Prospect IL 60056, or telephone (312)577-9656.

### WIZARDCON '86, Apr. 5

This gaming convention will be held in Ferris Booth Hall at Columbia University in New York, N.Y. Events will include demonstrations and tournaments of the DUNGEONS & DRAGONS® game, Diplomacy, Ace of Aces, Pente, and many more game systems. Although there is no admission charge, a nominal entry fee will be required for participation in each tourna-

## **Convention Calendar**

ment. For more information, send a selfaddressed, stamped envelope to: Columbia Games Club, 301 Ferris Booth Hall, Columbia University, New York NY 10027.

### WERECON VIII, Apr. 11-13

This gaming convention is sponsored by the Wayne Weregamers, the Detroit Gaming Center, and the City of Detroit Recreation Department. This event will be held at the Lighthouse Center in Detorit, Mich. Palladium Books authors Kevin Siembieda (Palladium RPG, Mechanoids, Heroes Unlimited) and Erick Wujcik (Teenage Mutant Ninja Turtles) will be the featured game masters. Role-playing games, naval miniatures, and board games are among the featured activities. Registration is free, but tournament entry fees range from \$1 to \$2. For more details, contact: Erick Wujcik, P.O. Box 1623, Detroit MI 48231, or telephone (313) 833-3016.

### STAR CITY CON, Apr. 18-20

This convention will be staged at the Patrick Henry Hotel in Roanoke, Va. Orson Scott Card and Rudy Rucker will be the guests of honor. Panels, videos, an art show, author readings, and a dealers' room will be among the scheduled activities. For more information, send a self-addressed, stamped envelope to: Star City Con, 1305 Burks St. SW, Apt. #9, Roanoke VA 24015.

### VIKING CON 7, Apr. 18-20

This science-fiction convention will be staged at the SFFC V. U. Building at Western Washington University. For more details about this event, contact: Tim Hoehner, Western Washington University, Bellingham WA 98225.

### BATCON V, Apr. 19

This one-day gaming convention will be held at the Batesville Middle School in Batesville, Ind. Featured events are a tworound RPGA[™] AD&D® tournament and a miniatures painting contest. Registration fees are \$4 in advance, and \$7 at the door. For more information, contact: SEIGA, 1005 Locust Avenue, Batesville IN 47006, or telephone Candy Washburn at (812) 934-5609.

### PURCON III, Apr. 19

This convention will take place at the State University of New York, College at Purchase. Special guest of honor will be Jonathan C. Hauff of American Games, Inc. Featured events include AD&D® tournaments, a miniatures and diorama contest, demonstrations, and open gaming. Registration fees are \$6 until April 12, and \$8 thereafter. For more details, contact: The Dunegons Masters' Guild, c/o SUNY at Purchase, Student Info. Booth, Campus Center North, Purchase NY 10577, or telephone (914) 253-5242.

### DIXIE-TREK, May 2-4

Sponsored by the Atlanta Star Trek Society, this convention will be held in Atlanta, Ga. For further information, contact: Owen C. Ogletree, Jr., 454 Huff Street, Apt. 9, Lawrenceville CA 30245, or telephone (404) 962-8118.

### HAVOC II, May 3-4

This convention sponsored by Battle Group Boston will be staged at South Middle School in Waltham, Mass. The weekend activities will feature 15mm WRG Ancients, Napoleonics (Empire Three), Napoleonic sail (Heart of Oak), and Avalon Hill's WWII and Modern microarmor. In addition to these minaitures events, Circus Maximus will be played, using chariot models. For more information, contact: Al Garnache, 142 Clark Street, Waltham MA 02154.

### LITTLE WARS, May 9-11

This convention will be held at the Triton College Student Building in River Grove, Ill. This convention will focus on miniatures events only. Over one hundred historical, fantastical, and science-fictional miniature battles will be offered. Registration fees are \$6. For more information about this miniatures convention, send a selfaddressed, stamped envelope to: Todd Fisher, 6010 N. Maramora Ave., Chicago IL 60646.

### **TECHNICON III, May 16-18**

This convention will be staged at the Blacksburg Econo-Travel in Blacksburg, Va. Featured at the convention will be a gaming tournament, video rooms, an art show, computer games, a masquerade, and a Star Wreck play. For more details, contact: Technicon III, P.O. Box 256, Blacksburg VA 24060.

### TRI-STATE CON '86, May 16-18

This convention will be held at the main campus of Southern Ohio College in Cincinnati, Ohio. Featured activities include an auction, tournaments, and a game-design seminar by professional designer Tom Moldvay. Registration fees are \$10 in advance, and \$12 at the door. Contact: Tri-State '86, P.O. Box 1754, Cincinnati OH 45201, or telephone (513) 931-6028.

### CONJURATION III, May 23-25

This gaming convention will be staged at the Hilton Hotel in Tulsa, Okla. Gaming tournaments, open gaming, a video room, and a masquerade are among the scheduled events. For more details, send a selfaddressed stamped envelope to: Conjuration, P.O. Box 690064, Tulsa OK 74169.

### M.I.G.S. VII, May 25

The Military Interests and Gamers Society cordially invites all gamers to the society's seventh annual convention. This convention will be staged at the Kitchener-Waterloo Regional Police Association Recreation Centre in Cambridge, Ontario. This oneday event will begin at 10 A.M. and end at 6 P.M. Free tutorials, seminars, painting contests, board games, and adventure roleplaying tournaments will be among the featured events. Registration fees are \$2. For more information, contact: Les Scanlan, President M.I.G.S., 473 Upper Wentworth

### **Convention Calendar Policies**

In order to ensure that all convention listings contain accurate and timely information, all material should be either typed double-spaced or printed legibly on 8½" by 11" paper. The contents of each listing must

**not** exceed 70 words in length. The information given in the listing **must** 

be prepared in the following format: 1) title and date (not to exceed 2 lines of

printed matter),

2) site and location,

3) guests of honor (if applicable),

4) special events offered,5) registration fees or attendance re-

quirements,

6) address (telephone number optional) where additional information can be obtained.

### Sample listing:

### EVERYCON, June 1-3

This gaming event will take place in Nowhere, Ind. Fred Smith and Jane Doe are guests of honor. Role-playing games and miniatures events will be featured. Registration is free. For details, contact: EveryCon, P.O. Box 000, Nowhere IN 46000.

Convention flyers, brochures, newsletters, and other mass-mailed announcements will not be considered for this column and will be discarded. We reserve the right to edit listings, but we are not responsible for updating them.

All listings must be accompanied by a cover letter which includes both an address and a telephone number. We are not, though, responsible for incorrect information provided to this office. If a cover letter is not provided, the listing will not be printed. No call-in listings will be accepted.

Foreign and domestic listings are welcome.

Convention listings should be mailed by the copy deadline date to Patrick Lucien Price, Convention Listings Coordinator, c/o DRAGON® Magazine, P.O. Box 110, Lake Geneva WI 53147.

Copy deadline dates are the last Monday of each month, two months prior to the onsale date of an issue. For example: The copy deadline for the June 1986 issue is the last Monday of April 1986.

For any questions related to the Convention Calendar, please contact Mr. Price at (414) 248-3625, ext.376. Street, Hamilton, Ontario, Canada L9A 4T6.

### DALLAS CON '86, June 6-8

This gaming convention will be held at the Ramada Hotel in Dallas, Texas. Events will include AD&D® tournaments, Cars Wars, Champions, Star Fleet Battles, and miniature games. For details, send a selfaddressed, stamped envelope to: Dallas Con '86, 3304 Crater Lane, Plano TX 75023.

### **GLATHRICON GAMEFEST '86, June 6-8**

This convention will be staged at the Ramada Inn in Evansville, Ind. Guests of honor will be Bob Blake, Penny Petticord, and Frank Mentzer. Scheduled activities include RPGA[™] tournaments, a variety of role-playing games, a painting contest, and a masquerade. Registration fees are \$9 until May 15, and \$12 thereafter. Preregistration fees for tournaments are \$2. For more details, contact: River City Science Fiction Association, P.O. Box 3894, Evansville IN 47737.

### WARGAMERS WEEKEND, June 7-8

This wargaming convention will be held at the Disabled American Veterans Hall in Newburyport, Mass. Offering the finest in historical games, this event will also include many role-playing and board games. For inquiries on registration or on running game events, send a self-addressed, stamped envelope to: Newburyport Wargamers Association, P.O. Box 148, Newburyport MA 09150.

### SYCCON 2, June 14

This comics and gaming convention will be staged at the Peach Tree Mall in Marysville, Calif. The guest of honor will be Colleen Doran (*A Distant Soil*). Registration to GAMEQUEST, an open gaming minicon administered by the Northern California Sceince Fantasy Association, is \$3. Admission to all other activities is free. For more details, contact: Update Productions, c/o The Game Warden, 24 Peach Tree Mall, Marysville CA 95901, or telephone (916) 741-3383 (10 A.M. to 6 P.M. daily).

### SPOKON '86, July 18-20

This science-fiction and fantasy convention will be held at the Ridpath Hotel in Spokane, Wash. For more information about this convention, send a self-addressed, stamped envelope to: S.A.I.F., P.O. Box 9582, Spokane WA 99205.

### DOVERCON II, July 19-20

This convention will be staged at the Dover Municipal Building Auditorium in Dover, N.H. Featured events will include D&D® and AD&D® tournaments and Diplomacy events. Artwork and miniatures will be judged, and winners will be awarded. Dealer inquiries welcome. Registration fees are \$5 for single-day attendance, and \$8 for the weekend. For more details about this convention, contact: DoverCon II, P.O. Box 622, Dover NH 03820.

### SEAGA '86, June 20-22

This fourth annual gaming convention will be staged at the newly remodeled Airport Sheraton Hotel in Atlanta, Ga. Tournaments will be offered for a variety of fantasy and science-fiction role-playing games. War games and board games will also be available. Registration fees are \$12 until June 19, and \$15 at the door. No mail-in orders will be accepted after June 1. Phone orders may be placed by telephoning (404) 996-9129 on Monday-Wednesday from 11 A.M. to 7 P.M., on Thursday-Saturday from 10 A.M. to 9 P.M., and on Sunday from 1 P.M. to 6 P.M. Mastercard and Visa will be accepted. Send your mail-in orders to: SEAGA '86, P.O. Box 16564, Atlanta GA 30321. For hotel reservations, contact: Airport Sheraton Hotel, 1325 Virginia Ave., Atlanta GA 30344, or telephone (800)325-3535 toll-free nationwide, or (404) 768-6660 for Georgia residents.

### **RIVER CITY CON, June 28-29**

This convention will take place on the Consumnes River College campus. Events featured will be a Car Wars and an AD&D® tournaments. There will be many other role-playing games and board games available. Other activities will include an auction and local vendors' area. Registration fees are \$5 per day of attendance; these fees can be mailed in until June 16. For more details, contact: River City Con, 3950 Mack Road #65, Sacramento CA 95823.

### WINDSOR GAMEFEST IV, July 19-20

Sponsored by the Windsor Role-Players Association, This convention will be held in Ambassador Hall at the University of Windsor in Windsor, Ontario. Featured events include role-playing, miniatures and board games, free movies, and a dealers' area. Preregistration fees are \$10 In Canadian funds; registration fees are \$12 in Canadian funds for a weekend pass, and \$7 in Canadian funds for a daily pass. For more information about this event, contact: WRPA Head Office, 584 Brighton Road, Windsor, Ontario, Canada N8N 2L6.

### KAL-KON '86, Aug. 2-3

To be staged at Eason Hall in Westfield, N. Y., this convention will offer tournaments for the AD&D®, Traveleer, Star Fleet Battles, Car Wars, TOP SECRET®, and GAMMA WORLD® gaming systems. Dealers' tables will be available, and dealers are encouraged to attend. For more information, send a self-addressed, stamped envelope to: Gamer's Connection, P.O. Box 822, Jamestown NY 14702-0822

### MADNESS '86, Aug. 9-10

This comic book, gaming, and sciencefiction convention will be held at Middletown High School in Middletown, N.Y. Preregistration fees are \$8, and registration fees are \$10 at the door. For more details, send a self-addressed, stamped envelope to: Madness '86, 9 Sheffield Drive, Middletown NY 10940.

### GEN CON® 19 GAME CONVENTION, Aug. 14-17

This annual gaming convention, sponsored by TSR, Inc., will be staged at the MECCA Auditorium and Convention Hall in Milwaukee, Wis. For further information or for preregistration materials, contact: Marti Hayes, c/o GENCON® 19 Game Convention, P.O. Box 756, Lake Geneva WI 53147-0756, or telephone (414)248-*3625*.

### AUTUMN CAMPAIGNS '86, Sep. 6-7

Sponsored by the Lexington Historical Gamers Society and The Rusty Sacbbard hobby shop, this convention will take place at the Lexington Hilton Hotel in Lexington, Ky. Events will include historical miniatures, board games, and fanatsy and science-fiction role-playing games. For more details, send a self-addressed, stamped envelope to: Lexington Historical Gamers, c/o The Rusty Scabbard, 513 E. Maxwell Street, Lexington KY 40502.

### EARTHCON VI, Sep. 19-21

This science-fiction convention will be held at the Holiday Inn at Rockside Road and I-77 in Cleveland, Ohio. Guests of honor will include Gordon R. Dickson and C. J. Cherryh. Videos, a masquerade, an art show, and an auction will also be offered. For details about this event, contact: Earthcon, P.O. Box 5641, Cleveland OH 44101.



### (From page 6)

believable, more down-to-earth. Now that I have started over in a new campaign with a bigger party, I'm just as happy as a kender who has just had a lengthy conversation with Bahamut when my second-level half-ogre chops up a bunch of greasy hobgoblins with his mighty two-handed sword.

The importance of what I'm saying is that Monty Haul campaigns are not all bad; though we would all like to avoid them, sometimes a taste of the pie is all that is necessary to cure the "sweet-tooth" that we've all had from time to time.

> Dan Preece Pilgrim, Ky.

* * * *

Concerning Charles Olsen's question in issue #106, in his article "The laws of magic," he asked "Why do clerics have a chance for spell failure, while magic users do not?" He gave an answer saying that the gods, being rushed in the morning, are more careful in placing the spells in the minds of their better followers with high wisdom, than in placing spells in the minds of followers with low wisdom, thus the chance for spell failure for clerics with wisdom of less than 13.

I find this answer to be insufficient. Firstly, what about those 5 lone clerics in the world, praying at about 4:30 in the afternoon for a few spells while locked up in that deep, smelly dungeon? I see no reason why the god should be rushed and mess up the bestowal of those few measly spells. Secondly, in my campaign I play gods as though they weren't bound by such mortal limits as time; they are in fact, immortal. By that reasoning, a god should never be rushed to do anything.

So I offer a different reason for the cleric's chance of spell failure. Wisdom affects a person's judgement, so it stands to reason that a cleric with better judgement should have less of a chance for doing something wrong which might possibly affect his god, and vice versa. Therefore, when a god leisurely checks each of his followers, he might find something which displeases him, and he would then choose to hold back a spell for a day.

Norman Shapiro Spring Valley, N.Y.

In the article on the medusa and the maedar in issue #106, I detected an ambiguity which I think needs some clarification. It described the maedar converting stone to flesh from adventurers that the medusa had petrified, and the medusa and maedar using this as a source of food. Yet the article also stated that the medusa would leave the lair to hunt. If the maedar had the ability to convert pure stone to true flesh, what need would there be for a medusa to hunt, as an ample food supply could be obtained directly from rocks?

A rational explanation in my opinion would be that the petrification power of the medusa does not turn flesh into true stone, but rather into a substance as hard as stone – possibly by a process of solidification of the fluids normally present in living organic creatures. For example, water in *(Turn to page 97)* 

### ATLANTICON '86 TRENTON STATE COLLEGE TRENTON, NJ JUNE 19-22, 1986

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For further information, contact Mary Parkinson, TSR, Inc., P.O. Box 756, Lake Geneva, WI 53147.

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