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IN THIS ISSUE

The end of the world may be soon, so we've packed this issue of *Pyramid* with articles to help you survive the apocalypse.

Peter Dell'Orto and Sean Punch explain how *Deathball* has become the new national sport. Watch teams use *GURPS Martial Arts* to vie for precious fuel or other rewards!

In one of the Infinite Worlds, Paul Drye presents an extratough challenge: people trying to survive the end times cut off from Earth, in *Infinite Crossroads: Survivor's Moon*.

Need a place to refuel or repair your vehicle? Head over to *Zippemart!* Matt Riggsby is your guide on this repurposed gas station. Visitors can trade skills, knowledge, or goods, provided they leave the attitude outside. Usable in most settings, with *GURPS* stats for the major players.

Signs of the Times presents newspaper clippings suitable for many ends of the world. For those who haven't decided on the nature of their apocalyptic campaigns, Name That Apocalypse has plenty of good questions. GMs who want to dive into a ready-made world can use The Day the World Broke with GURPS (but it's generic enough that conversion is easy).

The *Omniscient Eye* sees all and tells you about it with two installments this issue. *Does My Nuclear Arsenal Have an Expiration Date?* deals with the shelf life of the ultimate weapons of mass destruction, while *Are Humans a Renewable Resource?* looks at the math behind replenishing our numbers.

Humor looks at Ragnarök's funny side, and *Recommended Reading* reviews some suggested doomsday games.

Todd Breitenstein, creator of **Zombies!!!**, winds up with issue with his thoughts on the end times.

Article Colors

Each article is color-coded to help you find your favorite sections.

Pale Blue: In This Issue

Brown: In Every Issue (letters, humor, editorial, etc.)

Dark Blue: **GURPS** Features Purple: Other Features

Green: Recommended Reading

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(LACK OF) LETTERS PAGE

Citizens of the future: If you can read this, then all hope may not be lost!

Errr, no, let me try again.

Anyway, this issue once again finds itself being assembled in the distant past . . . in the year I believe you Terrans called 2008. And, once more, we don't have many letters relating to the first couple of magazines to share just yet. Probably starting with next issue, we'll have our first honest-to-goodness letters page!

This is the third issue of the latest edition of *Pyramid*, and the first tackling a sci-fi theme . . . in this case, the post-apocalypse. It's a big topic, but we think we've got a good cross section of what's possible. Let us know what you think! If you're looking to chat about the new issue with virtual friends, might we recommend the Steve Jackson Games Forums at **forums.sjgames.com**, under the *Pyramid* subforum?

WELCOME BACK!

Sure, we're saying, "Welcome back!" to you, dear reader. (Or "Welcome!" if this is your first issue.) But that's not all!

The old weekly form of *Pyramid* existed for almost 10 years, and we ran a number of features we're quite proud of during that period. We're happy to welcome back a couple of old friends to *Pyramid*.

Infinite Crossroads

First, Paul Drye's Infinite Crossroads makes its re-appearance. In each installment, Paul presents a world suitable for the *GURPS Infinite Worlds* setting, with plot seeds and

campaign ideas for additional use. New Infinite Crossroads will appear whenever Paul is inspired, but it'll probably be every few months or so, as the theme inspires him.

The Omniscient Eye

Also making a return is the Omniscient Eye. Sages theorize that the Omniscient Eye might actually be composed of a panel of Experts chosen through mysterious and arcane means. Regardless, the Omniscient Eye is benevolent and willingly shares its lore with all. Or, at least, to all who purchase *Pyramid*.

The Omniscient Eye seeks to answer questions that are tied to knowledge of the real world, providing information with a perspective that is of use to gamers. The Omniscient Eye does not concern itself with specific game systems or statistics.

Do you have a question for the Omniscient Eye? Feel free to send it to **pyramidquestions@yahoogroups.com**, and the Omniscient Eye might answer it!

WRITE HERE, WRITE NOW

We love to get your feedback! Please feel free to send in letters and comments to **pyramid@sjgames.com.** In addition, we're looking for "New Tricks for Old Dogs." Did you think of a clever use for an article in a past issue? Maybe you built an entire *Dungeon Fantasy* level around Deathball, or used the Zippemart as a plot point in an *Infinite Worlds* campaign? If so, e-mail us a brief (no more than 400 words) description of what you did and how well it worked.

I still enjoy reading any articles that can be mined for ideas, and often, the well-written articles of **Pyramid** make it easy for me to extract something from them . . . and if not, they make an enjoyable read by themselves.

- Liantefaron, from the Steve Jackson Games forums

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DEATHBALL

BY PETER DELL'ORTO AND SEAN PUNCH

Gar stood on the field, one arm around his striker stick and the other on his hip as he surveyed the opposition: Dregs, mostly – but potential contenders. The locals were big fans of the game. They'd somehow scraped together enough beefy farm boys, apearmed mutants, and crazed bikers to field a team. They even had uniforms, sewn together from precious scraps of synthetics left over from before the Big One.

Gar had seen it all before . . . he was a veteran. He'd played in the big leagues, but he'd grown too old to keep up. Now here he was, touring the wastelands, fighting for scraps of old tech and precious canned foods.

He inspected his team. His defenders were ready; they'd finished strapping on their armor and sharpening their elbow spikes. His fellow striker, Wolf, flashed her sick pre-game grin, barely visible under the battered football helmet from the 20th. Both of his motorstrikers were revving their engines, blades on wheel hubs gleaming in the sun. Finally, their carrier emerged: Over 200 pounds of green-skinned, three-eyed mutant, ready to take the ball through any opposition.

Ball? Well, tank. The ref grunted as he dropped the dangerously corroded but **full** propane cylinder mid-field for the first scramble. The winner would keep the precious fuel – if it didn't explode and kill both teams. Gar was old enough to remember when "blowout" meant a one-sided win, not a bloody draw.

The crowd's chant grew louder and louder: "Deathball! Deathball!"

The ref quickly fled the field.

It had begun.

The objective of Deathball is to get the "tank" through the mouth of the "goal." How you get it there, and what happens to anyone between you and the goal, is somewhat less important . . .

THE FIELD

Deathball is played on a rough field or pitch. Depending on the town, this might be a decaying football stadium, rugby pitch, or soccer field; in the badlands, it could even be a sunken pit. There are no universal standards. Traveling players rarely know the local "ground rules," so a good team learns to adapt, and he tries to recruit at least one member who *knows* the circuit – in game terms, somebody with both Area Knowledge (League Circuit) and Current Affairs (Sports) – even if he's old and slow.

Size and Shape

Most fields are rectangles from 100 to 160 yards long and between 50 and 100 yards wide. But not all! Circles, hexagons, and octagons abound. Indoor games sometimes use burned-out factories with multiple levels connected by ramps or stairs, steep drops on all sides, and the goals on the *top* floor.

Falls: Assume 5-yard industrial stories in indoor play. Falling velocity is 10, 15, or 18 yards/second for one, two, or three stories, should an unfortunate deathballer take a swan dive. See *Falling*, p. B431.

Conditions

Nothing in the rules (such as they are) specifies field quality. Possibilities include:

Bad Footing: The pitch might be uneven or muddy (+1 movement point per hex, -2 to attacks and DX-based skill rolls, and -1 to defenses), or both (*double* these penalties!).

Potholes: Crossing the edge of a shallow pit (either way) costs +1 movement point and requires a DX or Driving roll, at the speed penalty for current Move, to avoid a fall or a wipeout. Jumping the pit is possible, if it's no wider than jumping distance (p. B352) or vehicle Move. This demands a DX or Jumping roll on foot, or a Driving roll on a bike, with a distance penalty equal to width. Failure means a fall or a wipeout *in* the pit. See p. B550 for speed and distance penalties.

Tiger Pits: These *must* be jumped, as above! Failure, or being shoved or tossed into the pit, means falling damage (p. B431); assume a falling velocity of 10 yards/second. Damage becomes *impaling* for spiked pits. Scaling or mantling out takes five seconds and a Climbing roll.

Boundaries

A field's edges might be surrounded by harmless lines of old paint, but other options are:

Banked Earth: Tall, vertical, hard-packed earth walls, designed to resist climbing (if anyone tries, it takes 2-3 *minutes* and a Climbing-3 roll). They count as hard, immovable objects in collisions; see p. B431.

Barbed Wire: Wooden barricades or steel fence laced with razor wire. These have a lot of give and count as soft in collisions, but collision damage – including that due to knockback

Sure, the world after the fall may be bleak, but kids still need to play; that's how they learn. Scenes of active children can be a good contrast to the dark world.

ZIPPEMART

BY MATT RIGGSBY

Somewhere in Nebraska along I-80, there is a small town. Or, at least, there *was* a small town before the end of the world. But if you turn off the highway, head a few miles north past the destroyed truck stop and through the mostly demolished town, you'll find one of the last vestiges of civilization in America's heartland: the Zippemart. What used to be just another gas station and convenience store is now home to a tiny cross section of America: conservative and liberal, native and immigrant, all trying to overcome their differences in order to survive in a hostile new world.

RED, BLUE, AND THE END OF THE WORLD

When Big Daddy Offenbach died, only two of his eight children remained in town to take over the family farm. Neither Billy "Blue" Offenbach nor his brother Robert "Red" Offenbach had married, and both were interested in the farm, though for very different reasons. Blue was an eccentric – or, in the words of the highschool football coach, "a damn hippie Red Communist, that's what he is." Coach Rickey didn't have a firm grasp of politics, but Blue was off the left end of the spectrum, though his main interest was the environment, not gaining control of the means of production for workers. Blue wanted to transform the family farm into an organic paradise, rotating multiple crops through his fields, alternating cropping with pasturage, and doing the whole thing without artificial fertilizers, hormones, antibiotics, or even Diesel fuel (he had this idea about producing methane to run the tractor . . .).

Red, on the other hand, wanted to be an entrepreneur. He wanted to use the family business as the jumping-off point for a financial empire. A huge believer in the free market and the American Dream (and emphatically right-wing even by Heartland standards), Red saw family farms as a thing of the past and wanted to move into something more lucrative.

The year Big Daddy died was a good time to sell land, with several agribusiness firms looking to expand into the area. Blue and Red made an arrangement: The farm was too big for Blue to work the way he wanted to, and selling off some acreage would give Red the capital he desired to move into a business he thought would be more profitable. Where Blue saw a future in saving the planet, Red saw a future in petroleum retailing.

With his share of the inheritance, Red started a franchise of the Zippemart gas station and convenience store chain with attached garage, using a corner of the family land. Each retained a small interest in the other's business to keep everything in the family.

Red did pretty well, hiring one full-time clerk (an African immigrant happy to work just as hard as Red did himself) and some part-time help. It turns out he was right about the north side of town, away from the twin stations off the interstate, being a prime location.

Blue did well also. He hooked up with organic produce wholesalers in Atlanta and Austin and started paying off his investment faster than anyone expected.

Pick Your Apocalypse

The world has ended, but the nature of the collapse has been left vague, the better to fit into your own campaign. Just about anything will work so long as it doesn't render all agricultural land in North America completely uninhabitable. It assumes that whatever befell most of the world hasn't immediately destroyed the small rural region surrounding a little gas station and convenience store. However, it has been disturbed by fallout from the disaster and could be threatened by encroaching fallout, plague, or zombie hordes.

When the end came, Red headed for the bunker hidden under his gas station. When he came up for a look a few weeks later, he was chagrined to discover that while the world as a whole had ended, his particular part of it was still going on. Blue, along with Red's clerk Laurent, Laurent's wife Yvonne, and Red's sort-of girlfriend Lola had holed up in the convenience store. Life, to Red's surprise, went on.

After some initial discomfort and ongoing disputes (Red focused on defense, while Blue tried to create networks of survivors for mutual support), they organized themselves to face the inevitable fallout of the end of society. The nearby town was spared the worst of the disaster, though that didn't mean things went exactly well. The surviving townspeople, realizing that the rest of the world had (for all intents) gone away, fell to quarreling, which quickly turned into open fighting. Despite Blue's abortive attempt to broker peace, many were killed and

For additional GURPS post-apocalyptic ideas, consider reading through GURPS Atomic Horror. The ideas are more similar than not, and the difference is often only a matter of tone.

OMNISCIENT EYE ARE HUMANS A RENEWABLE RESOURCE?

BY GEOFFREY BRENT

I'm writing up some background for a campaign where society has collapsed and people are repopulating the world. I'm trying to figure out how fast population grows. Like, if I say that it's growing at 1% a year, how many children does that mean per person and how many people are dying of old age? Or taken from the other direction, if I know that a family has on average three children and average life expectancy is 60, how fast is the population growing? How much of the population is adults vs. children, and how will things like wars and plagues affect things?

- Anonymous

It was an age in which six out of seven women died in childbirth; in which infant mortality was a shocking 87 percent; in which the average life-expectancy was no more than 12.3 years; in which the Plague yearly ravaged the central city carrying away an estimated two-thirds of the population; in which continual religious warfare halved the able-bodied male population every *year...despite difficulties, the population soared to new heights.*

- Robert Sheckley, **Mindswap**

At present, the population of the world is growing at around 1.16% per year. That might seem like a small figure, but by historical standards, this is extraordinary, translating to a doubling time of 62 years. By UN estimates, population remained virtually static between 1 A.D. and 1000 A.D.; over the next 800 years, average annual growth was around 0.12%. Sustained high growth rates are only likely to happen when there's a massive increase in the ability to feed people (improvements in agricultural technology, acquisition of new lands) or when the population is recovering from a plague or other catastrophe.

So, if you want to model a low-tech society under normal conditions, you can probably ignore growth

altogether. However, recovering from massive depopulation is not a "normal condition." Exponential growth is a relatively simple scenario, so we'll begin there and introduce complications one by one.

EXPONENTIAL GROWTH

Population growth at any instant in time is given by a simple formula (1):

$$r = b - d + m \tag{1}$$

Here, r is the growth rate (negative growth means a declining population), b and d are the birth and death rates, and m is net migration (immigration minus emigration). These rates are typically given as numbers per thousand population per year, but for calculation, it may be convenient to turn them into decimal fractions.

Present-day figures for each of these variables can be found in the CIA World Factbook, or various other references. For instance, in the United States, birth/death/net migration rates are currently around 14, eight, and three per thousand, leading to overall growth of nine per thousand – just under 1% – per year.

The Formulae

The formulae given in this article have been presented in an included spreadsheet – just find the appropriate section and enter your numbers into the blue cells to get an answer that fits your situation. (The section number on the spreadsheet matches the formula number listed in the article.)

The further after the fall the campaign takes place, the more likely people would have forgotten the way things were.

About GURPS

Steve Jackson Games is committed to full support of *GURPS* players. Our address is SJ Games, P.O. Box 18957, Austin, TX 78760. Please include a self-addressed, stamped envelope (SASE) any time you write us! We can also be reached by e-mail: **info@sjgames.com**. Resources include:

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Errata. Everyone makes mistakes, including us – but we do our best to fix our errors. Up-to-date errata pages for all *GURPS* releases are available on our website – see above.

GURPS rules and statistics in this magazine are specifically for the **GURPS Basic Set**, Fourth Edition. Page references that begin with B refer to that book.

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