

The beginning is the end is the beginning

– Smashing Pumpkins



OVERHANG

Dice Chessex Festive Rio

5 MINUTES TO MIDNIGHT Dice Chessex Various

RENDEZVOUS WITH RANDOMNESS

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PHOTOS & TEXTS

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My deepest gratitude to my co-creators of this book, Anders and Tove Gillbring. For believing in dreams.

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Chapter 1 was made possible only thanks to the generosity of Matthias Hoschek and Jakob Gloger. They opened up their dice collections for my camera and shared their vast knowledge of vintage and antique dice. Thank you.

I also want to thank all of those who have helped, supported and inspired us in different ways along the way. Thank you Robert Bjurshagen, Gio Lasar, Christina Whitton, Christopher Schmied, Hal Zucati, Sara Svensson, Mats Lundkvist, Maja Danneman, Jens Olsson, Louis Dubois, my family and the people at the Dice Maniacs' Club.

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These photos have been shot with a Nikon D7000 and edited in Lightroom. Variables like contrast, white balance, noise reduction and color balance have sometimes been changed to enhance the photos. Important though, NO Photoshop have been used and NO techniques where you add things that weren't there from the beginning. Mostly the lenses 'Micro Nikkor 40mm f/2.86" and Nikkor 35mm f/1.86 have been used.



FORTUNA IMPERATRIX MUNDI

ABOUT DICE IN ROLE PLAYING



Let the Die be Cast

Whether God plays dice is up to theologians and metaphysicians to decide. What's more certain, however, is that many tabletop and role playing gamers do, and they love it. If you have any animosity toward geekiness, there is no need to read on, because this book is a veritable cornucopia for dice geekery.

Creation

In the beginning, shaman used sticks, rocks and bits of bone to produce randomness for religious purposes. At some point, this idea of pick-up sticks progressed out to other tribe members who began to develop simpler types of games. The oldest dice found – though sources are still divided on whether this is indeed the very oldest find – were discovered in Turkey and date to circa 3000 BCE, and other findings indicate that humans have been using dice even several thousand years before that. A thousand years BCE, dice were used in India, China, Greece and Rome. Six-sided dice were most common, but even twenty-sided dice from the Roman Empire and Ancient Egypt have been found. A 20-sided die of Roman origins was sold at Christie's auctioninghouse for \$17,925 in 2003. In the 1600s, Galileo and others began to use dice in the development of probability theory. In 1950,

the first twenty-sided dice made of plastic were manufactured by Tokyo Shibaura Electric Company, in order to promote the principles of statistical quality control. In 1974, *Dungeons & Dragons* released the world's first polyhedral dice set (though it did not include a ten-sided die; the D10). Eleven years later, the equally loved and hated *Zocchihedron*, with its hundred sides, was released. More sides than ever, but at the same time, it was a continuation of a tradition that reaches back thousands of years.

The Passion

Most role players have a collection of dice, whether large or small. It might include some regular dice that came with a board game, or some inadvertently swiped from a con, maybe one or two that were purchased purposefully in a store, and after a while, what do you know, a collection has formed. And some people take it even further. Kevin Cook's more than 68,000 dice make up the world's largest collection of specific types. Photos of them all can be found on his homepage for those who have a lot of time on their hand. If you are even a little bit interested, I recommend *Dice Maniacs' Club (DMC)* on Facebook. It is probably the best source for tips on new dice, etc. It's also an active forum for those who don't have anyone nearby to discuss one's dice collection with, which relatively few have.

The reasons for collecting are no doubt many, and some studies claim that collecting things in general may be a genetic trait that has carried over from the time we humans were huntergatherers. The now-somewhat-unfashionable Freud believed it derived from failed potty training. More modern research shows that joy, the hunt, a sense of purpose, a reminder of childhood, social interaction, and/or status can all be determining factors in why we collect things. When it comes to dice, status is not really evident in most circumstances. Or to quote my mother (when I came out of the dice bag as a collector): "Dice? Isn't that pretty geeky?" Maybe I should have mentioned that theory about failed potty training to her. But the real issue here is whether there is a necessity for any other reason than having fun while collecting?

A Golden Age

For the devoted collector, the times have never been better. Cook calls it the Golden Age of Dice. With 3D printing, new production techniques, and crowd funding, the number of different varieties and manufacturers has increased considerably over the past few years, and the range of choices are larger than ever. At Shapeways, you can order 3D-printed dice in shapes and materials that we could previously only dream of. How about a kraken-shaped D20 sporting tentacles with 18 karat gold plating? On the crowd funding page Kickstarter, you can find handmade dice from Japan, others shaped like medieval weapons, or even versions in aluminum with creative laser engravings. Although the prices are sometimes high and the delivery times are long, I recommend striking while the iron is hot if you find something that tickles your fancy. Dice have simply never gleamed as brightly as they do now.

The Beauty

Each dice set shines in its own way. The combination of colors, those geometrical shapes, and the themes together build a little

work of art. In some sets, colors are mixed in such a way that each die is completely unique. Grab a die and examine it up close. Then have a look at it in a different light or from another angle. Maybe you'll discover a kaleidoscopic view, a microcosm of galaxies and stars, or perhaps just a single opaque color. Each die and each set of dice has its own character, fascination and radiance. For those with a great visual appetite, that can be sufficient, but in gaming, they also serve an important purpose.

The Role of the Roll

A goal, a will to reach it, an obstacle in the way, and an uncertainty about whether it's even possible; these things are, at their root, the basis for creating tension and excitement. When we want to clear a hurdle in role playing, a state of unpredictability occurs. Who decides if a character will succeed? Will the muscular biker orc be able to lift the heavy motorcycle that has fallen on top of her? Is it always up to the game master? Or do strong people always manage the heavy lifting when the items are a given weight in certain circumstances? In our co-narration, we risk removing the uncertainty, and with it, the excitement. The skilled free-form game master can of course find a way around this, but it is a definite possibility that the story can become predictable, lose credibility, or make the players feel they are at the mercy of the game master's discretion. The motorcycle is perhaps difficult to get a grip on, the wet street might be slippery, or maybe the strong biker orc is terribly hungover. By using dice and rules, it's not that we inject a complete sense of randomness to the game, but rather a measure of likelihood as to whether the obstacle will be able to be overcome based on the character's circumstances and the obstacle's difficulty level. In other words, a randomness within a specific framework. In this way, random chance symbolizes all of the variables we are unable to predict or do not yet know about. The framework of rules, along with the randomness of the dice, thus contribute not only to a game's excitement, but also to a sense of credibility and realism.







Through the use of the dice, we get a completely impartial variable in the narration that affects the outcome of the characters' actions, and thereby the story. In film, music, and literature, adding random chance in the creative process is called *aleatoricism* (from the Latin alea for die, as in *alea iacta est*). Role playing is an apt example of this. With a roll of the dice resulting in a perfected or botched skill-check, the story can take a completely different direction that perhaps not even the game master could have planned or thought of. The player might throw the dice for a perfect roll and the terribly hungover biker orc is not only able to lift the motorcycle, but also swing herself ontop of the seat in a dazzling manouver as an impressed Lone Star troll looks over and then gives her his number.

Overall, the roles of the dice are many, and at worst they can slow down the story and chop it to pieces, but at best, they can add to the excitement, structure, realism, surprise, and inventive creation and imagination or even force the story in a completely new direction that no-one had thought of!

Chaos and Order

How random are our throws of the dice really? One die with symmetrical sides can, in theory, provide a totally random outcome every single time it is cast. A twenty-sided die that is thrown an infinite number of times should land on each side 5% of the time. But are the dice we buy really so exact? Awesome Dice compared curvier Chessex D20s with the sharper-edged Gamescience D20s and threw them 10,000 times each. Gamescience turned out to be closer to the distribution of 5% on each side, demonstrating that they are more precise. There was, however, an exception. Twenty-sided Gamescience dice have a small bit of plastic residue from the mold on the number 7, which you have to remove by hand. In the test, the die landed with that side down significantly fewer times, which means that the number 14 on the opposite side was the most uncommon outcome.

How about the throwing, then? Kapitaniak's study, "The three-dimensional dynamics of the die throw" from 2012 showed that the outcome is only completely random if the dice have rolled an infinite number of times. Otherwise, the chance is greater that

the side of the die that is down when thrown will be the side that lands downward. In practice, this means that if you want to throw a 20, you should have that side up when you throw the dice. Even though it's all about minute differences, this is vital information for the person who wants to have statistics on their side.

If you want even more influence over the throws of the dice, you can try to learn to control their outcome through working on your throwing technique. This is somewhat controversial, but many claim that it is a skill that is possible to improve. One example of such a person is Dom "The Dice Dominator" LoRiggio, who can be found on YouTube. He applies his methods in *Craps*, but keep in mind it is considerably harder to achieve the desired roll with dice with more than six sides. But it never hurts to try.

Now of course role playing is seldom about winning, and more about character design, acting and storytelling. It's unclear whether precision and statistical advantages really matter, but it is certainly appealing to have luck a bit more on your side.

Faith, Hope and Dice

If precision dice, statistical advantages and throwing techniques aren't enough to entice, well, there's always the usual dice mythology. A few superstitions and belief in old wives' tales are, after all, common in role playing, from how the dice are stored to how they're placed between rolls, to whether they even deserve to remain in continued use after a few failing throws. The dice seem to be recharged or discharged depending on all sorts of different factors, forces and elements. Of course this belief varies from player to player. My very rational friend Robert sees the dice as functional randomizers while my somewhat more superstitious friend Louis is practically reading the coffee grounds, waving around a rabbit's foot, and calling on Lady Luck before each and every throw in the hopes of a divine intervention. It seems doubtful that it's helping, since no one seems to fumble as often as he does when it's time to save his dying friends ... Unless that's exactly what he means to do?

When it comes to dice, everyone is a bit different, but why not go the slightly magical route? Not because it is logical or correct, but because it is more exciting.



The Die is Cast

Dice have a history of thousands of years, and they have become a symbol for both games and random chance in areas like philosophy, physics, and even popular culture. The increased interest in different types of games has caused the creation of dice to expand into a subcultural art form. In role playing, dice have taken on a unique role in that we allow them, to a certain extent, to determine our characters' fates. In this way, we have

figuratively turned them into the narrative's invisible gods. Not as all-powerful as the game master, but more like unpredictable and mischievous lesser gods. We have, in other words, invited the many guises of Lady Luck to dance, and a misunderstood Nietzsche must of course have been referring to tabletop role playing games when he said "That thou art to me a dancing-floor for divine chances, that thou art to me a table of the Gods, for divine dice and dice-players!" So, let us now turn the page and allow random chance to dance with our senses.



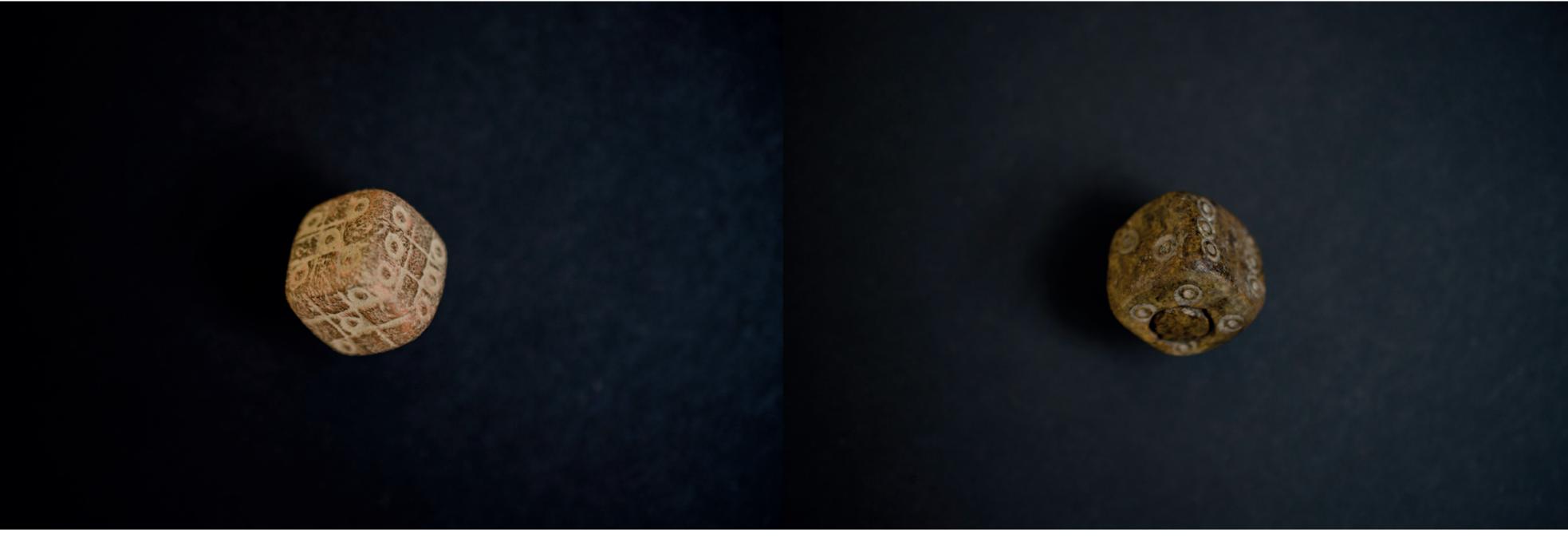
By these pleasures it is permitted to relax the mind with play, in turmoils of the mind, or when our labors are light, or in great tension, or as a method of passing the time.

> — Girolamo Cardano, **The Book of Games of Chance** (1663)

TAGUA NUT

Handmade leathercup (to avoid cheating) from the early 19th century with hand carved tagua nut dice.





ROMAN STONE

Roman die, ca. 200-300 BCE, Stone.

ROMAN BONE

Roman die, ca 200-400 CE, hollow sheep-bone, fully filled with bone bar.



BROKEN BACK ELEPHANT

Probably for a special game in Myanmar. Beginning of the 20th century.

HAPPY HORSE

Probably for a special game in Myanmar. Beginning of the 20th century.

IG 17







WWI

From World War II, Germany

RED AND BLUE

Found during the demolishing of an old house in Thuringia, Germany, 19th century.

CHAPTER 1



TEETOTUM

England, 18th - 19th century. Left side boxwood, right side bone.

CHIMES

Indonesian "chime" or "singing" dice from approx. 1820-1880, hollow bone with a piece of metal (silvernickel) inside.





MULPA ROLLER

Full set of German patented "Mulpa-roller", from 1920-1935 (deutsches reichsgebrauchsmuster, "d.r.g.m.")



MULPA ROLLER

Full set of German patented "Mulpa-roller", from 1920-1935 (deutsches reichsgebrauchsmuster, "d.r.g.m.")

ROVO DICE

ROVO Dice Machines Erich Röber Apparatebau Leipzig, Germany 1933, 1934, 1935



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SERPENTINE

26-sided Serpentine stone dice from Saxony, for the early German "put and take" game, produced in the timespan from between 1880-1910 TA: 'Trink Aus' i.e. 'Empty your glass' The Stork Club was a nightclub in Manhattan, New York City, which during its existence from 1929 to 1965 was one of the most prestigious clubs in the world. A symbol of café society, the wealthy elite, including movie stars, celebrities and aristocrats all mixed in the VIP Cub Room of the club.

THE STORK CLUB

Original logo-dice cup with logo-dice from the famous Stork Club. Maybe celebrities like Marilyn Monroe and Joe Di-Maggio played with them?

CHAPTER 1

STICKS, STONES AND BONES



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POKER

Hand carved bakelite poker dice, ca.1920



HONG KONG CLUBS

In the early 60's there were many hidden and forbidden clubs for Americans in the basements of some luxury hotels in Hong Kong.

These are hand carved bakelite dice from such a club.
The clubs were frequently visited by American soldiers on leave.

Danse, danse au bal de la chance Danse, danse ma rêverie ...

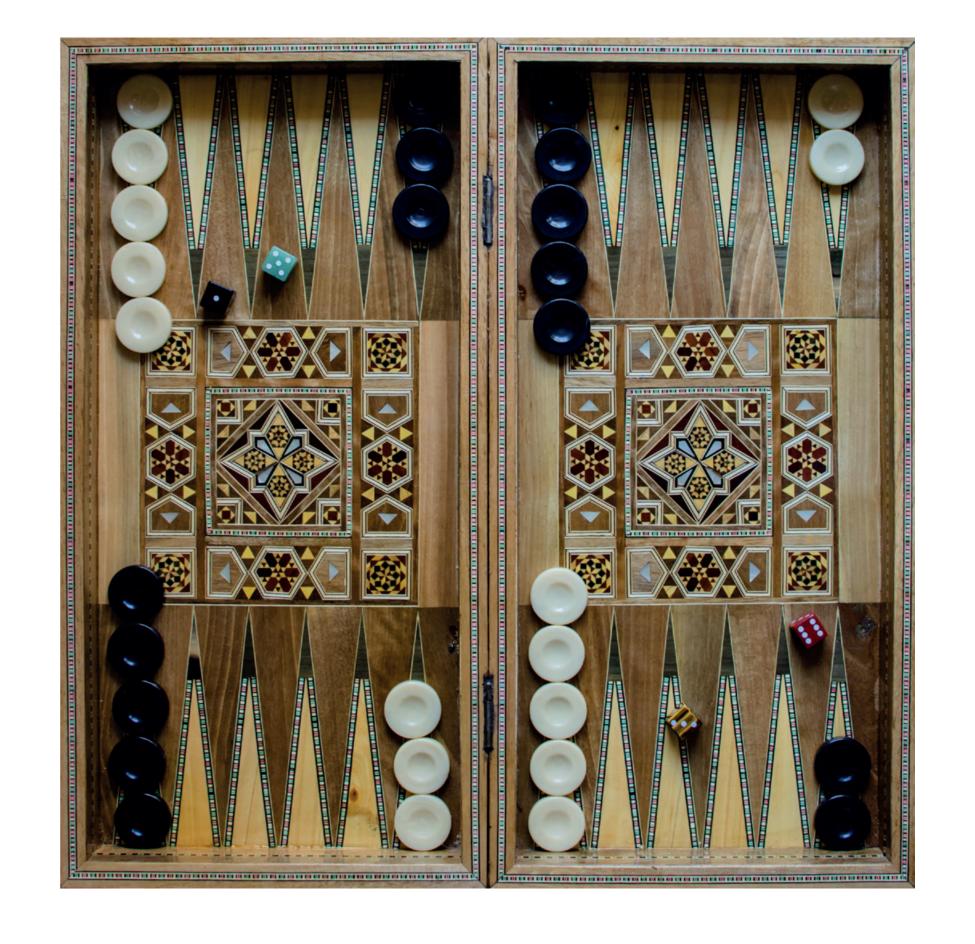
Dance, dance at this party of chance Dance, dance, my daydreams ...

— Edith Piaf

BACKGAMMON

Tabula is thought to be the direct ancestor of modern **Backgammon**. According to the **Etymologiae** by Isidore of Seville, **Tabula** was first invented by a Greek soldier of the Trojan War named Alea.

Dice TDSO/Metallic Dice Games, Gemstones

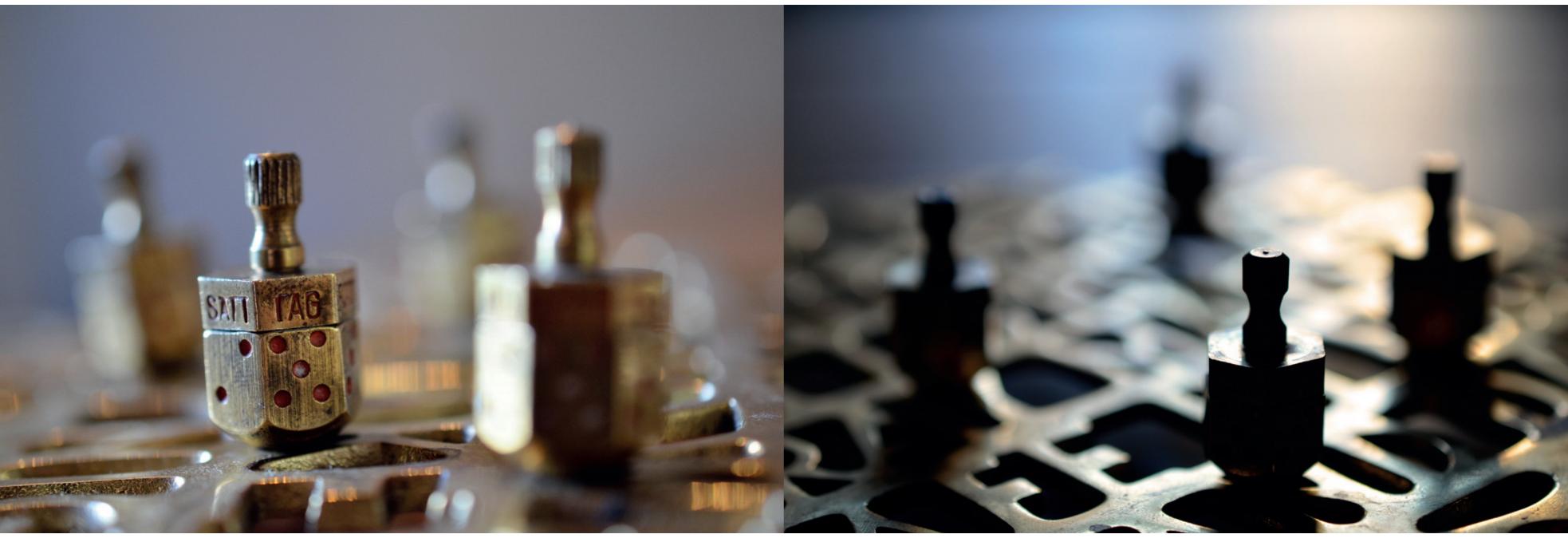




GEMSTONES

Semiprecious gemstones: Red Jasper, Hematite, Tiger Eye Gold, Amethyst, Clear Quartz, Rose Quartz, Opalite, Black Obsidian, Blue Sandstone, Aventurine, Gold Sandstone, Lapis Lazuli

Dice TDSO/Metallic Dice Games, Various Gemstones



OLD SPINNERS

Put and Take is one of many forms of Teetotums, which are any gaming spinning top. Players ante into a pot and take turns spinning the top.

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Dice Brass Spinners

Dice Brass Spinners

SPINNING IN THE DARK

What the evidence demonstrates ... is that this was a man who did not and could not control his urge to gamble ...
- Harry Kakavas' lawyer after Harry had gambled away \$164 million in five and a half hours.



Surprisingly humans didn't learn to count odds until the 16th and 17th century with mathematicians like Girolamo Cardano, Pierre de Fermat and Blaise Pascal. Before that the result of the dice were up to the will of higher powers.

Dice Chessex, Various







4





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6











3













SNAKE EYES WITH MATES

38

Craps is played with two dice where the players wage on the outcome.

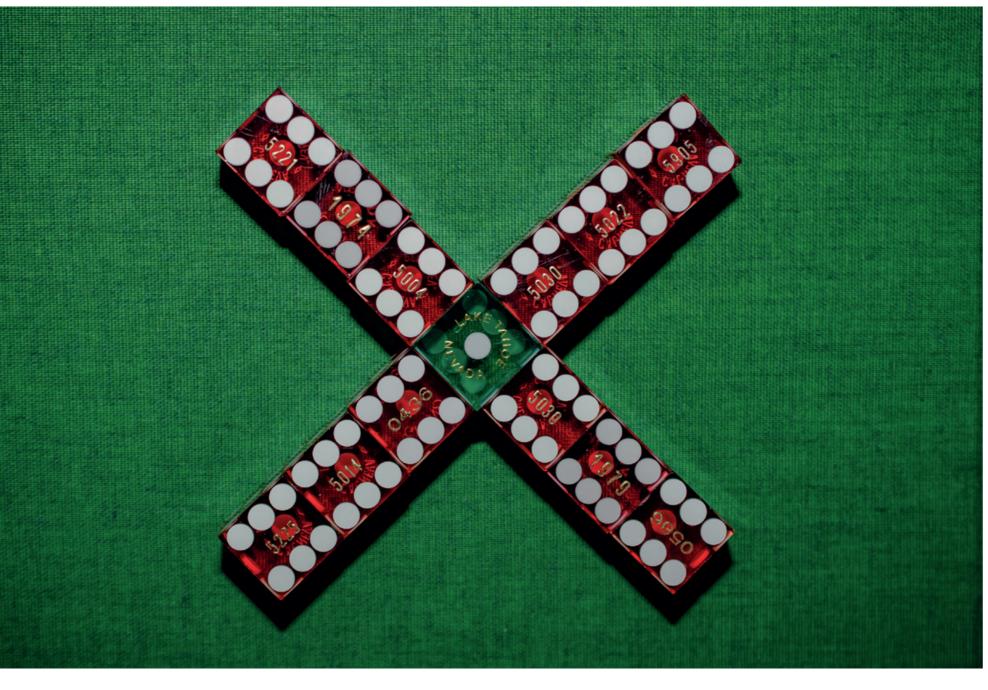
Dice Casino Dice

Dice Casino Dice

BENNY BLUE AND THE BALLERINA

In the casino, the cardinal rule is to keep them playing and to keep them coming back. The longer they play, the more they lose, and in the end, we get it all ...

- Robert De Niro in *Casino*













MIDNIGHT X

Two sixes is called midnight in *Craps*.

Dice Casino Dice

Dice Casino Dice

MONTE CARLO

Dice from one of the most iconic Casinos in Europe.





FATE

Fate is a role-playing game system created to minimize obstruction to role-playing.

Dice Evil Hat Production; Fate Dice, Core

Dice Various

MESS
Ooohhh. You want to play. Come on!

- The Joker in *The Dark Knight*

SAIQLO

Hana saku ya sakura ga shita no bakuchi-goya Under the cherry tree in bloom a little gambling shack

– Kobayashi Issa

Dice Saiqlo Dice, Hand made Japanese Dice



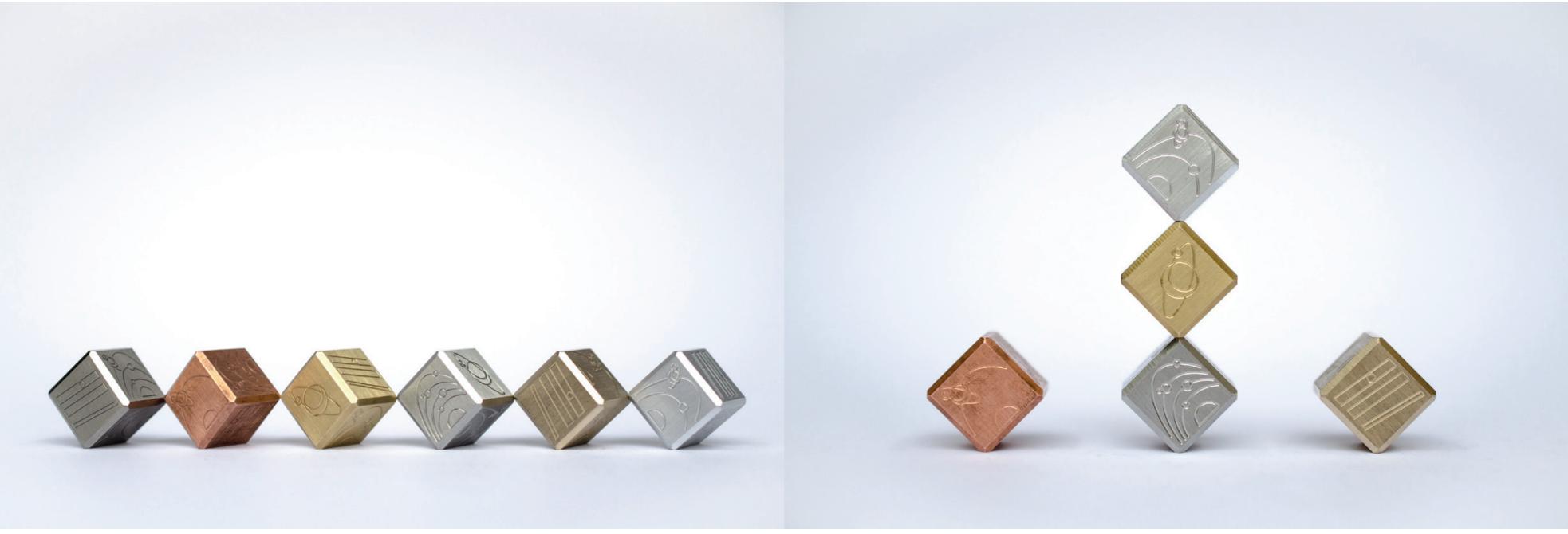


Dice Tenzi, Various Tenzi Dice

CANDY

The first player to get all ten of their dice to match the same number shouts out "TENZI" and wins the game!





SPACE CARAVAN

One of the many new versions of 6-sided dice.

Dice ZucatiCorp, Pale Blue Die in various metals

Dice ZucatiCorp, Pale Blue Die in various metals

SPACE RACE

To boldly go where no man has gone before - Star Trek



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PALE BLUE DICE

Look again at that dot. That's here. That's home. That's us. - Carl Sagan **Dice** ZucatiCorp, Pale Blue Die in various metals

Dice Ulfsark Games, Roman, Dragons Scales, metal precision CNC, laser engraved

ROME

When playing a game, the goal is to win, but it is the goal that is important, not the winning. – Reiner Knizia

CHAPTER 3 POLYHEDRAL POETRY

Something is coming.

Something hungry for blood.

A shadow grows on the wall behind you, swallowing you in darkness.

- It is almost here.
- What is it? What if it's the Demogorgon?

Oh, Jesus, we're so screwed if it's the Demogorgon.

It's not the Demogorgon.

An army of troglodytes charge into the chamber!

- Troglodytes?
- Told ya.

Wait a minute.

Did you hear that? That that sound?

Boom boom Boom!

That didn't come from the troglodytes.

No, that That came from something else.

The Demogorgon!

- We're in deep shit.
- Will, your action!
- I don't know!
- Fireball him!

I'd have to roll a 13 or higher! Too risky.

ALEATORIC

- Stranger Things
Dice O Workshop, Celtic 3D



CHAPTER 3

POLYHEDRAL POETRY



TSR DRAGON DICE





Q WORKSHOP DEADLANDS





GAMESCIENCE PRECISION DICE

Dice GameScience. Precision



Q WORKSHOP FOREST

Dice Q Workshop, Forest 3D



CHESSEX OPAQUE













Dice Chessex, Opaque



POLYHERO WARRIOR

Dice Polyhero, Warrior



SHAPEWAYS TOP DICE

Dice Shapeways, Top Dice, 3D printed in metal

CHAPTER 3 POLYHEDRAL POETRY





















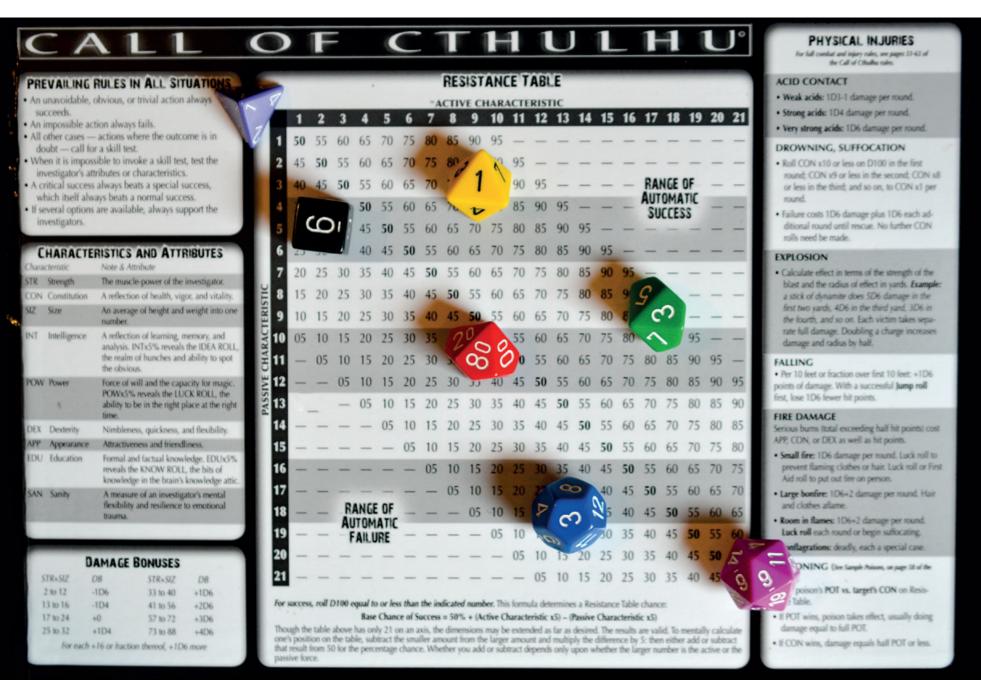






PLATONIC SOLIDS

Tetrahedron: Fire Cube: Earth Octahedron: Air Dodecahedron: Universe (later Aether) Icosahedron: Water - According to Plato in **Timaeus**. CHAPTER 3



HârnMaster COMBAT TABLES MELEE ATTACK BLOCK COUNTERSTRIKE DODGE [CF[MF]MS]CS)(CF]MF[MS]CS)(CF[MF]MS]CS)(No Roll) A*2 A*1 Block A*4 A*3 A*1 B*2 A*3 A*2 A*1 ATTACK MISSILE EMLS DEF ► (CF MF MS CS) (CF MF MS CS No Roll | DEF BS Both Stumble Roll LV: Shield (Full MI) HV: Shield (Full ML) HV: Half MI Random Hit, or ✓ M*3 M*2 M*1 Block M*3 M*2 M*1 AIMING ZONE INJURY MID LOW EFFECTIVE IMPACT EML -10 EML +0 EML -10 1+ 5+ 9+ 13+ 17+ 01 - 05SKULL 16 - 30 06 - 10 FACE† 31 - 45 11 - 15 NECK 46 - 57 . •SHOULDER 58 - 69 28 - 33. • UPPER ARM 70 - 73 34 - 35 • ELBOW ♦G4 | ♦G5¥ 74 - 81 36 - 39 01 - 06 · FOREARM ◆S3 | ◆G4¥ 82 - 85 40 - 43 07 - 12 ·HAND ♦G4 ◆G5♥ 86 - 95 13 - 19 THORAX 95 - 00 20 - 29 ABDOMEN MI • GROIN MI 81 - 88 - 50 - 70 THIGH ◆M1 **♦**S3 ♦G4 ♦K4▼ 89 - 90 71 - 78 • KNEE •M1 ◆S2 **♦**S3 ♦G4 ♦G5¥ 91 - 96 79 - 92 •M1 •M1 •S2 •S3 •G4▼ 97 - 00 93 - 00 •M1 ◆S2 ◆S3 ◆G4 ◆G5▼ †FACE: 01-15 Jaw 65-80 Nose ▼Amoutation Roll ◆Fumble or Stumble Roll

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BASIC RESISTANCE

Role playing games use dice to let the players navigate in the given world with it's physical laws.
Eg. is your character strong enough to lift that stone?

ORANGE MASTERS

The systems and rules of role playing games are many and the taste and opinions of the optimal systems vary.

POLYHEDRAL POETRY

CHAPTER 3 POLYHEDRAL POETRY



TALES

The challenge of role playing games is good storytelling, because most often the story is 'written' along the way.

Dice Q Workshop, Celtic 3D **Dice** Q Workshop, Celtic 3D

ROLLING THE TALE

Dice are used to account for many of those aspects that would be too comprehensive to integrate in a gaming system.



POLYHEDRAL POETRY

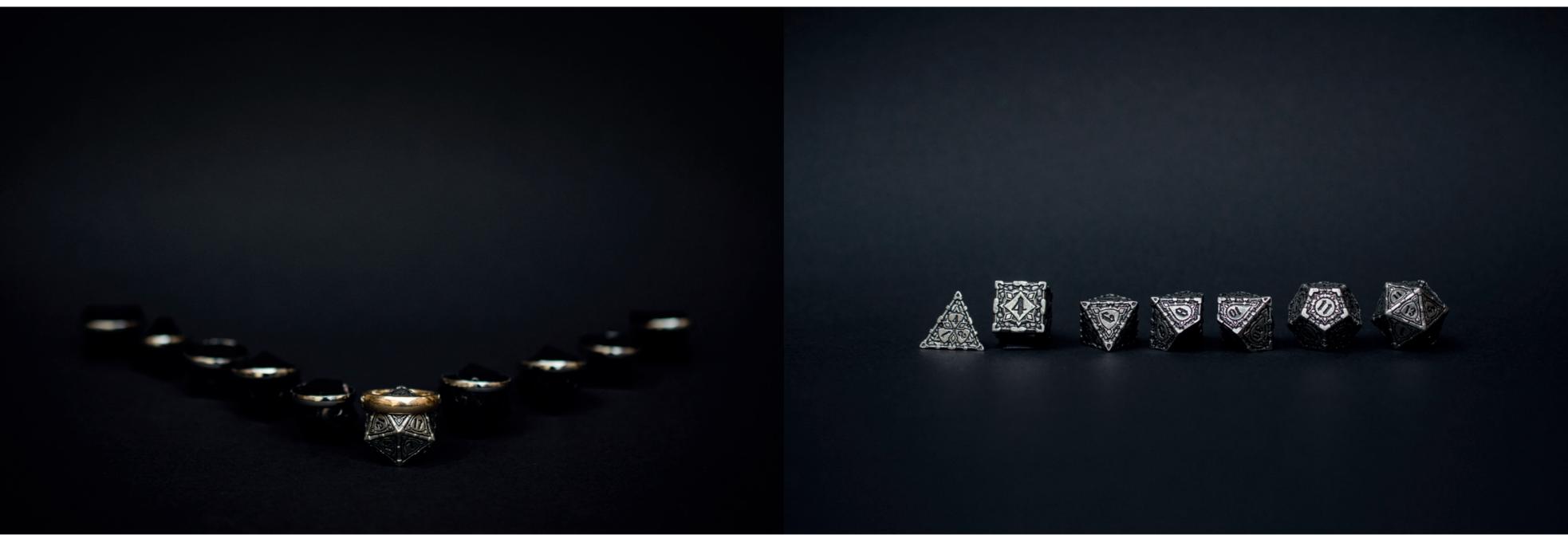
They stretched their sides to the stream,
And sea and land were to them the same,
The rough grey ocean was the same
As meadow-land green and plain.

– Duanan Gacha Druid in *The Story of Deidre*

CELTIC CIRCLE

Dice Shapeways, Celtic, Celtic Dice Set 3D-printed in metal

CHAPTER 3 POLYHEDRAL POETRY



ONE

Nine for Mortal Men doomed to die, One for the Dark Lord on his dark throne. One Ring to rule them all. One Ring to find them, One Ring to bring them all and in the darkness bind them. - J.R.R. Tolkien

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Dice Q Workshop and GameScience, Metal Pathfinder Dice, GameScience Precision Coal Dice Q Workshop, Metal Pathfinder Dice

UNBREAKABLES

The most awesome metal dice set on Earth
– and possibly in the whole Universe.
– Q Workshop

CHAPTER 3 POLYHEDRAL POETRY



ZOCCHIHEDRAL SPHERES

Zocchihedron aka 'Lou's Lost Golfball'

Dice GameScience, Zocchihedron, Silver

Dice GameScience, Zocchihedron, Silver

THE PHANTOM OF CHANCE

A fantastic shape but due to the design the numbers located around the 'poles' occur with less frequency.

CHAPTER 3 POLYHEDRAL POETRY



AU BAL DE LA CHANCE

For luck you carried a horse chestnut and a rabbit's foot in your right pocket. The fur had been worn off the rabbit's foot long ago and the bones and the sinews were polished by the wear. The claws scratched in the lining of your pocket and you knew your luck was still there.

Dice Shapeways, Top Dice, 3D printed in metal

The big teetotum twirls, And epochs wax and wane As chance subsides or swirls; But of the loss and gain The sum is always plain.

- Double Ballade on the Nothingness of Things, William Ernest Henley

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TWIRLS AND SWIRLS

Dice Shapeways, Top Dice, 3D printed in metal

CHAPTER 3 – POLYHEDRAL POETRY

EQUILIBRIUM

You must let what happens happen.
Everything must be equal in your eyes,
good and evil, beautiful and ugly,
foolish and wise.

- Michael Ende, *The Neverending Story*

Dice ShenZhen City TianZe Hardware Co Ltd, TZ tungsten



METEORITE DIE

An extraordinary die in many ways. Battered and burned when arriving to earth, later masterly made into a fantastic die and finally battered and burned once again in the making of this book.

Dice ZucatiCorp, Made out of a Meteorite from Campo del Cielo, Argentina





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TECHNO IN THE MIRROR

Random chance plays a huge part in everybody's life. - Gary Gygax **Dice** Ulfsark Games, Dragons Scales, Techno

Dice Crystal Caste, Hybrid, Pearl Blue

CRYSTAL CASTE

In the tavern men were laughing, jesting over ale, wagering on the dice. - Katharine Kerr, **Daggerspell**



NEBULA ON ICE

The coolest dice on the planet. - Chessex Dice Chessex, Nebula, Dark Blue

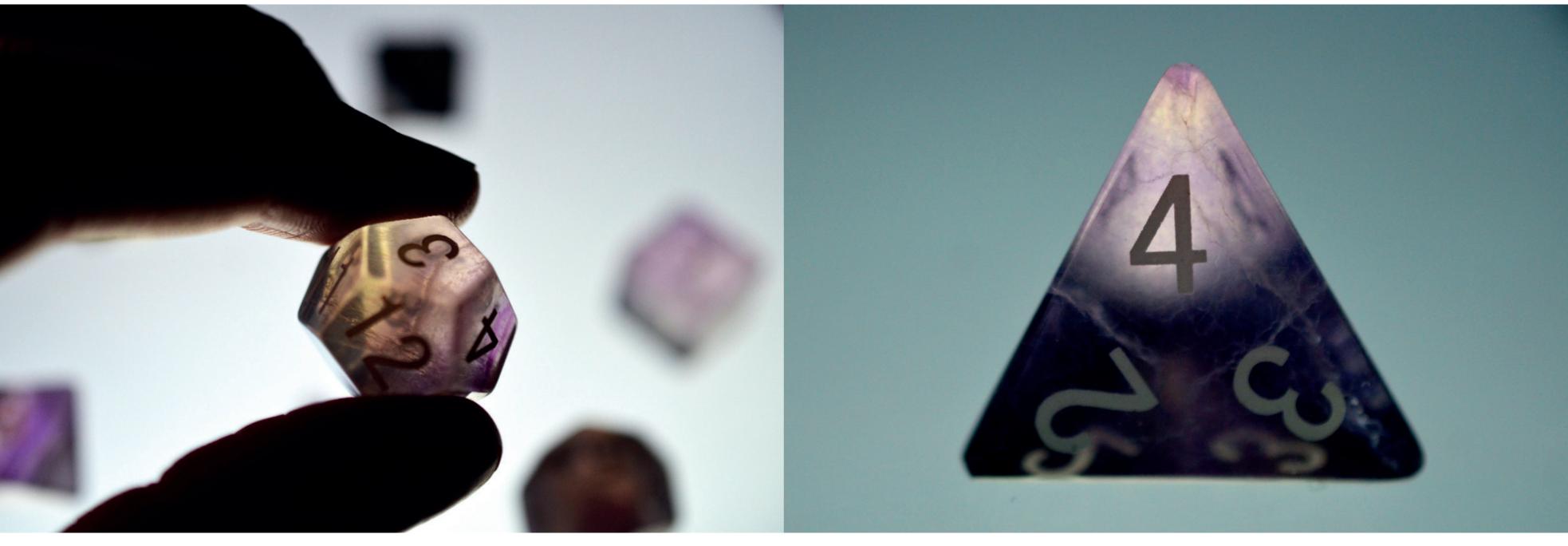
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Dice TDSO/Metallic Dice Games, Rose Quarts Gemstone

PINK PANTHERS

This loosely aligned network of criminals is believed to have carried out around 380 armed robberies targeting high-end jewellery stores.

- Interpol



DECISIONS

There's a lot of randomness in the decisions that people make.

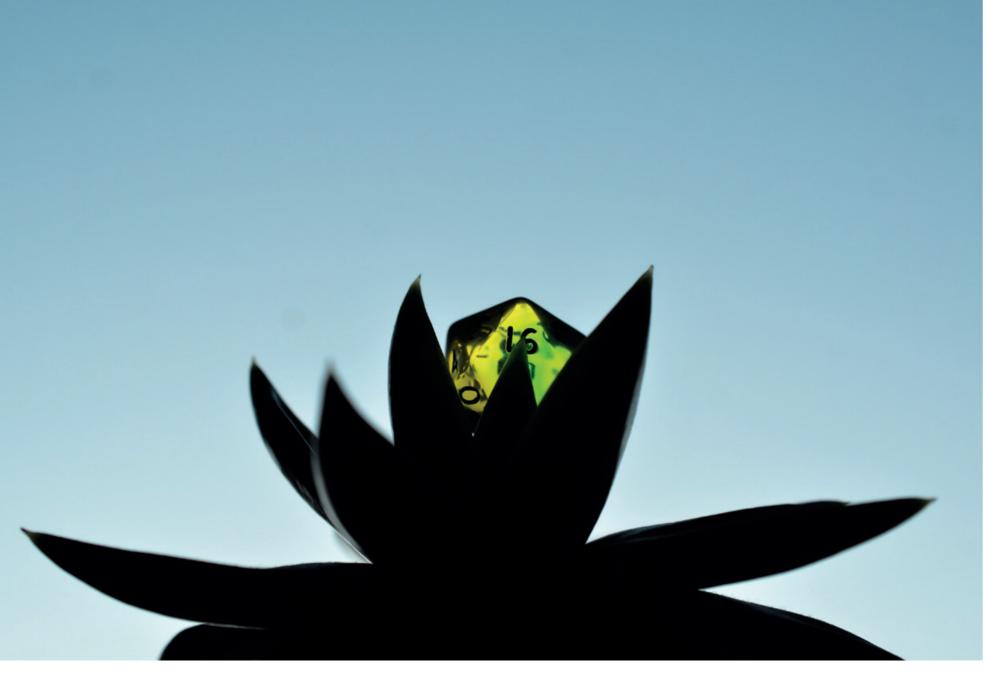
- Daniel Kahneman

Dice TDSO/Metallic Dice Games, Rainbow Flourite

Dice TDSO/Metallic Dice Games, Rainbow Flourite

MOUNT FUJI

l'm more than just a piece in their Games. – Suzanne Collins, *The Hunger Games*





LITTLE PLANT OF HORRORS

I'm just a mean green mother from outer space and I'm bad! - Little Shop of Horrors

Dice D&G, Gem Blitz, Aqua

Dice D&G, Gem Blitz, Aqua

AUDREY II

Feed me! - Little Shop of Horrors

Mein Sohn, was birgst du so bang dein Gesicht? Siehst Vater, du den Erlkönig nicht! Den Erlenkönig mit Kron' und Schweif? Mein Sohn, es ist ein Nebelstreif.

Du liebes Kind, komm geh' mit mir! Gar schöne Spiele, spiel ich mit dir,

Why is your face so frightened my son? The King of elves, father, see him yon? The Elfin King with his tail and crown? It is the fog, my son, streaming down.

Yes, you my dear child, come go with me! The games I play, you'll like them, come see.

— *Der Erlköning*, Johann Wolfgang von Goethe

GREEN DRAGON EGG

The green one shall be Rhaegal, for my valiant brother who died on the green banks of the Trident.

- Daenerys Targaryen in *A Clash of Kings* by George R. R. Martin

Dice Chessex, Vortex, Dandelion





ERLKÖNIG

Yes, you my dear child, come go with me!
The games I play, you'll like them, come see.
— **Der Erlköning**,
Johann Wolfgang von Goethe

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Dice Q Workshop Forest 3D

Dice TDSO/Metallic Dice Games, Aventurine Gemstone

TITANIA

What angel wakes me from my flowery bed?
- Titania in *A Midsummer Night's Dream*by William Shakespeare



PUCK

Fairy king, attend, and mark: I do hear the morning lark.

- Puck in **A Midsummer Night's Dream** by William Shakespeare

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Dice D&G, Gem Blitz, Purple

Dice D&G, Gem Blitz, Purple

FOREST GEM

Return the crystal to the Palace in Parapa - Zelda II: The Adventure of Link

CHAPTER 4



OBERON

But we are spirits of another sort: I with the morning's love have oft made sport, And, like a forester, the groves may tread, Even till the eastern gate, all fiery-red,

- Oberon in *A Midsummer Night's Dream* by William Shakespeare

TREE TROLLS

We all have forests on our minds. Forests unexplored, unending. Each one of us gets lost in the forest, every night, alone. – Ursula K. Le Guin,



Dice Hand carved tagua nut dice

Dice Chessex



ENCHANTED FOREST

Do you have the 7 magic containers?
- Zelda II: The Adventure of Link

Dice Chessex, Vortex, Green

Dice Chessex, Vortex, Green

MAGICAL GLADE

Never eat wild mushrooms. They could be toadstools. Gnome in *Fable*



GAMBLING PROBLEMS IN LILLIPUT

90

Undoubtedly philosophers are in the right, when they tell us that nothing is great or little otherwise than by comparison.

– Jonathan Swift, *Gulliver's Travels*

Dice Koplow Transparent Mini

Dice Koplow Transparent Mini

BLEFUSCUDIAN BETTING

Do you ever get the feeling that someone is playing games with us? — Walter Beck in *Fable*



FOREST FAIRY

I do wander everywhere, Swifter than the moon's sphere; And I serve the fairy queen, To dew her orbs upon the green.

– Fairy in Shakespeare's **A Midsummer Night's Dream**

92

Dice D&G Gem Blitz Aqua Dice

Dice GameScience, Precision Dice: Blue Opal & Gold Ink

SPIDER'S SNOWY CATCH

93

Join me in the Forbidden Forest, and confront your fate. – Lord Voldemort in J.K. Rowling's Harry Potter and the Deathly Hallows



94



THE WHITE WITCH

Always winter but never Christmas.

- C.S. Lewis, The Lion, the Witch and the Wardrobe **Dice** Chessex, Nebula, Dark Blue

Dice Borealis, Sky Blue

WINTER IS COMING

For they are the knights of summer, and winter is coming. – George R.R. Martin, *A Clash of Kings*



MOTHER NATURE AT PLAY

But I wasn't very lucky today, was I?
- Rudolph in *Rudolph, the Red-nosed Reindeer*

RUDOLPH'S LOST NOSE

Dice GameScience , Zocchihedron, Red

Mirror of the night

Your eyes green swords inside my flesh. waves between our hands.

All of you in a space full of sounds
— in the shade and in the light.
You were called AUXO-CHROME
the one who captures color.
I CHROMOPHORE — the one who gives color.

You are all the combinations of numbers. life.
My wish is to understand
lines form shades movement.
You fulfill and I receive.
Your word travels the entirety of space
and reaches my cells which are my stars
then goes to yours
which are my light.







GAME OF CHANCE

Oh it's **Risk** the game of world domination, being played by two guys who can barley run their own lives.

- Jerry Seinfeld, *Seinfeld*

Dice Various

Dice Various

RANDOM PEACE

Peace begins with a smile.

- Mother Teresa



102



VITRAIL

Un soir de flamme et d'or hante la basilique, Ravivant les émaux ternis et les couleurs – Laurent Tailhade An evening of flame and gold haunts the basilica, reviving the tarnished glazes and colors

– Laurent Tailhade (free translation)

Dice GameScience, Various

Dice GameScience, Various

BLUE KISMET

I know that I shall meet my fate somewhere among the clouds above; those that I fight I do not hate, those that I guard I do not love. – W.B. Yeats



LUCID DREAMS

You know that place between sleep and awake, that place where you still remember dreaming? That's where I'll always love you. That's where I'll be waiting.

Dice Chessex, Opaque

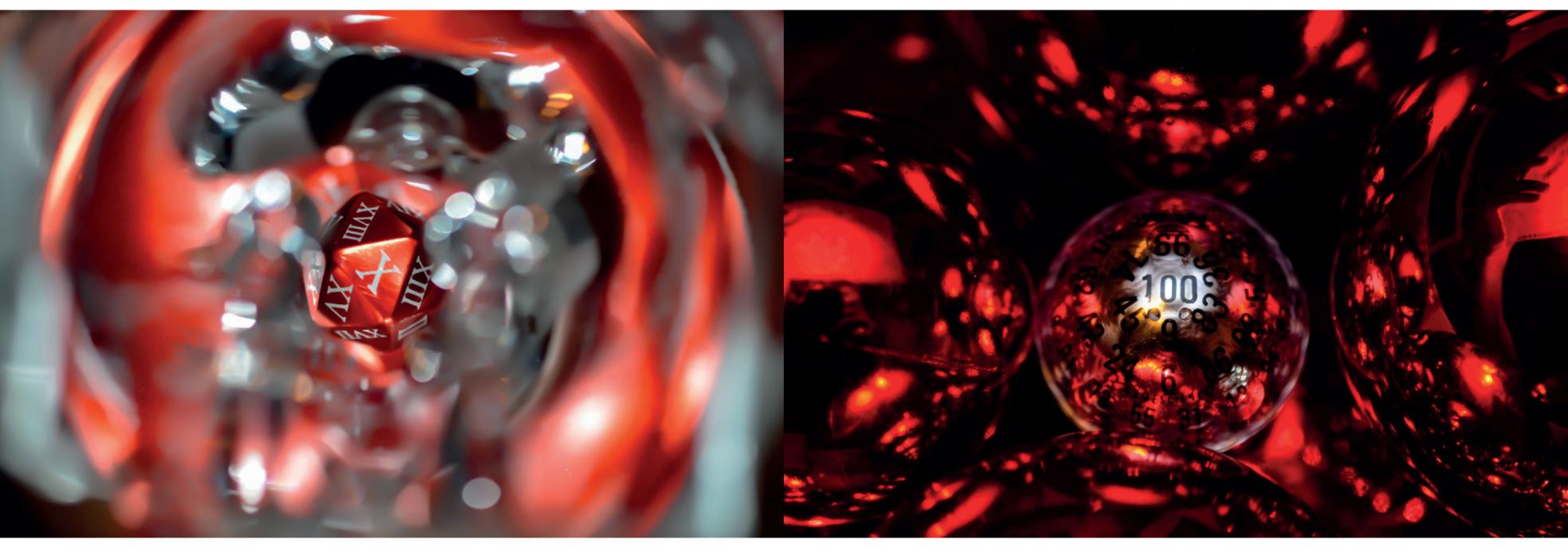
Dice Ulfsark Games, Dragons Scales: Roman

FUNNY FRIENDS

Mirror, mirror, on the wall, Who in this land is funniest of all?

– J.M. Barrie, *Peter Pan*

104



THE RED QUEEN

Now, here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!

- The Red Queen in Lewis Carroll's *Through the Looking-Glass*

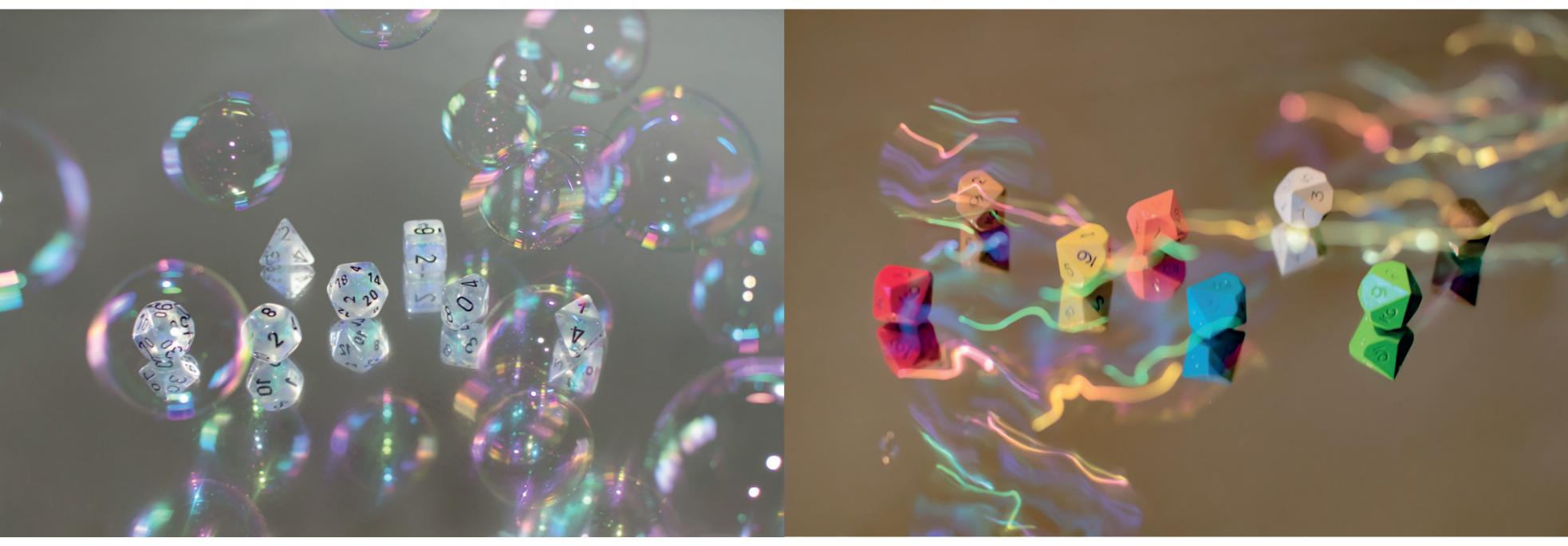
Dice Ulfsark Games, Dragons Scales: Roman

Dice GameScience, Zocchihedron, Silver

CHRISTMAS BAUBLES

Christmas is a season not only of rejoicing but of reflection.

- Winston Churchill



PHANTASMA

People think dreams aren't real just because they aren't made of matter, of particles. Dreams are real. But they are made of view-points, of images, of memories and puns and lost hopes.

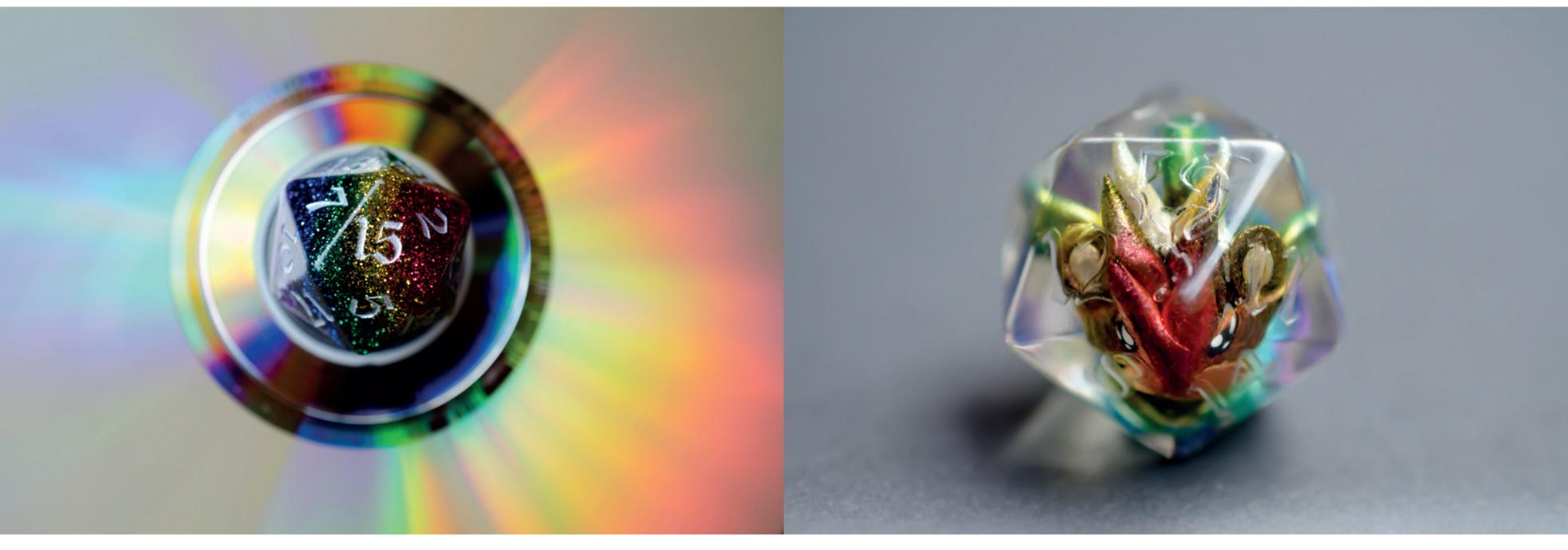
Dice Chessex Borealis, Aquerple

Dice GameScience

RETRO DANCER

Now I wanna dance, I wanna win. I want that trophy, so dance good. — *Pulp Fiction* (1994)

– Neil Gaiman



RAINBOW DROP

Rainbow drops - suck them and you can spit in six different colours.
- Roald Dahl, *Charlie and the Chocolate Factory*

110

Dice Littlecluus

Dice Littlecluus

OBJET D'ART

On the Discworld we know that There Be Dragons Everywhere.
They might not all have scales and forked tongues, but they Be Here all right,
grinning and jostling and trying to sell you souvenirs.

- Terry Pratchett, *The Color of Magic*

CHAPTER 6 SYMMETRY OF ENTROPY

Introduce a little anarchy.
Upset the established order,
and everything becomes chaos.
I'm an agent of chaos.
Oh, and you know the thing about chaos?
It's fair!

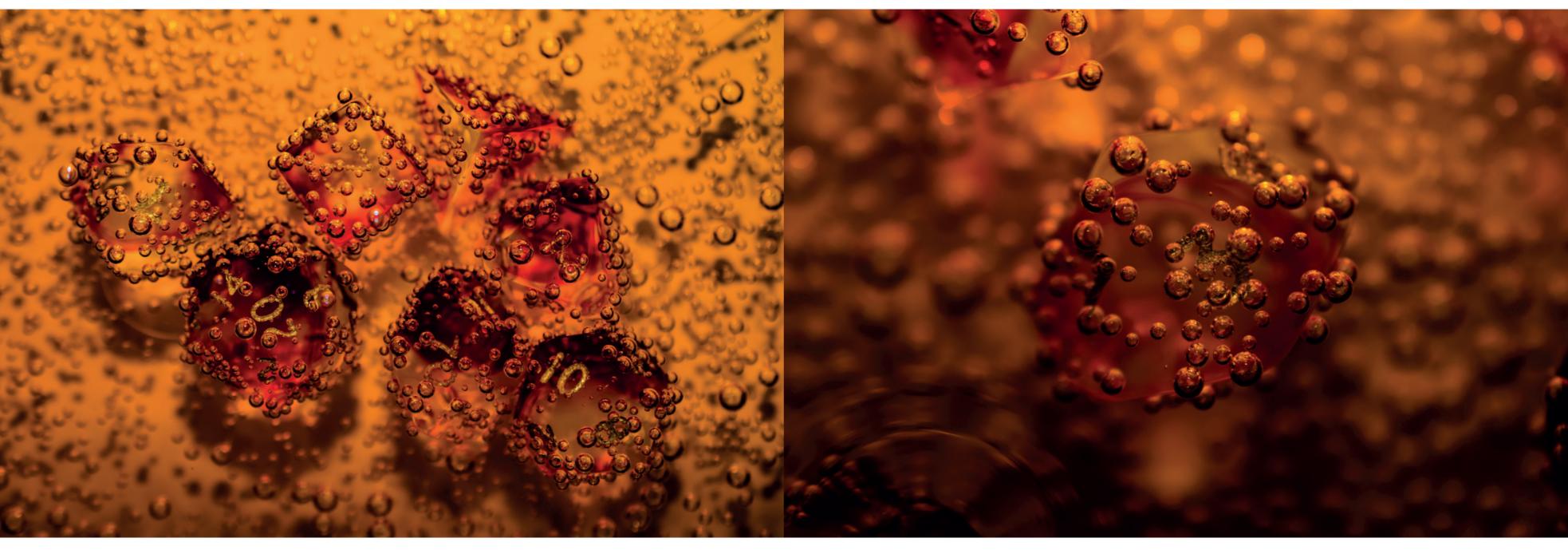
—The Joker in *The Dark Knight*



Dice Various



CHAPTER 6 SYMMETRY OF ENTROPY



COLA

I am the maker of music, the dreamer of dreams! – Willy Wonka in Roald Dahl's, Charlie and the Chocolate Factory **Dice** D&G, Gem Blitz, Purple

Dice D&G, Gem Blitz, Purple

COLA CLOSE UP

Bubbles, bubbles everywhere, and not a drop to drink ... yet. - Willy Wonka and the Chocolate Factory

CHAPTER 6 SYMMETRY OF ENTROPY



KALEIDOSCOPE

... the geometry of the place was all wrong. One could not be sure that the sea and the ground were horizontal.

– H.P. .Lovecraft, *The Call of Cthulhu*

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Dice D&G, Gem Blitz

Dice D&G, Gem Blitz

THE DRUNKARD'S WALK

The phrase *The Drunkard's Walk* comes from a mathematical term describing random motion, such as the paths molecules follow as they fly through space, incessantly bumping, and being bumped by , their sister molecules.

- Leonard Mlodinow

CHAPTER 6



AQUATIC ACROBATICS

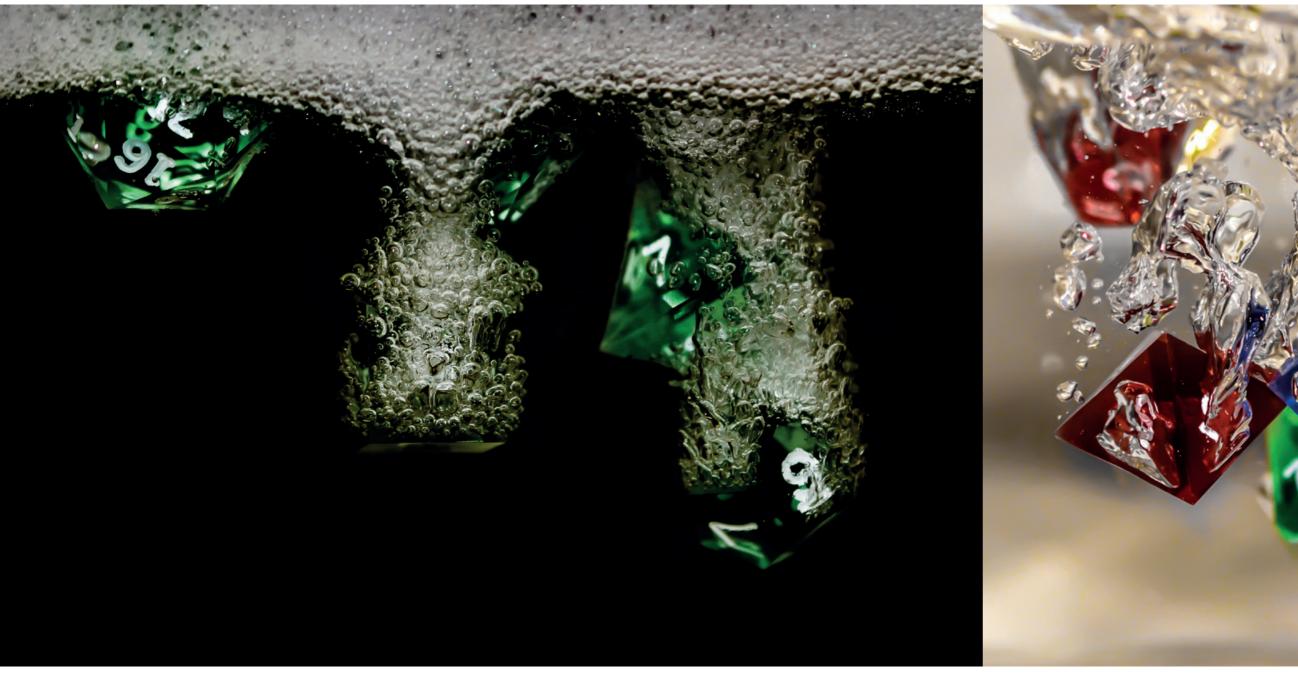
Randomness is not just inevitable; it is part of the beauty of life. Acknowledging it and appreciating it helps us respond constructively when we are surprised.

— Ed Catmull, Creativity, Inc

Dice D&G, Gem Blitz



CHAPTER 6 SYMMETRY OF ENTROPY





DISHWASHER DRAGON

But we were dragons. We were supposed to be cruel, cunning, heartless and terrible. But this much I can tell you, we never burned and tortured and ripped one another apart and called it morality.

— Terry Pratchett, Guards! Guards!

Dice GameScience, Precision

Dice GameScience, Precision: Ruby, Emerald & Sapphire

THE PLUNGE

Alea lacta Est - Caesar when crossing the river Rubicon



SYMMETRY OF ENTROPY

You took too much, man. You took too much.

- Dr. Gonzo in *Fear and Loathing in Las Vegas*

PURPLE HAZE

Dice Chessex, Festive, Violet

CHAPTER 6 SYMMETRY OF ENTROPY



SPARKLINGS

Trust me, trust me. We gotta take a chance. – Cait Sith in *Final Fantasy VII* **Dice** Koplow, Glitter

Dice Chessex, Festive, Vibrant

FIND THE **7**th Die

Roll to Spot Hidden

CHAPTER 7 MACROCOSM IN MICROCOSM

The study of the galaxies reveals a universal order and beauty. It also shows us chaotic violence on a scale hitherto undreamed of. That we live in a universe which permits life is remarkable. That we live in one which destroys galaxies and stars and worlds is also remarkable. The universe seems neither benign nor hostile, merely indifferent to the concerns of such puny creatures as we.

— Carl Sagan, *Cosmos*

ZETA PUP

We're all puppets, Laurie. I'm just a puppet who can see the strings. — Dr Manhattan to Laurie in **Watchmen** by Alan Moore

Nice Game Crience Dregision Rlue Monnetone



CHAPTER 7 MACROCOSM IN MICROCOSM



INTERSTELLAR CAROUSEL

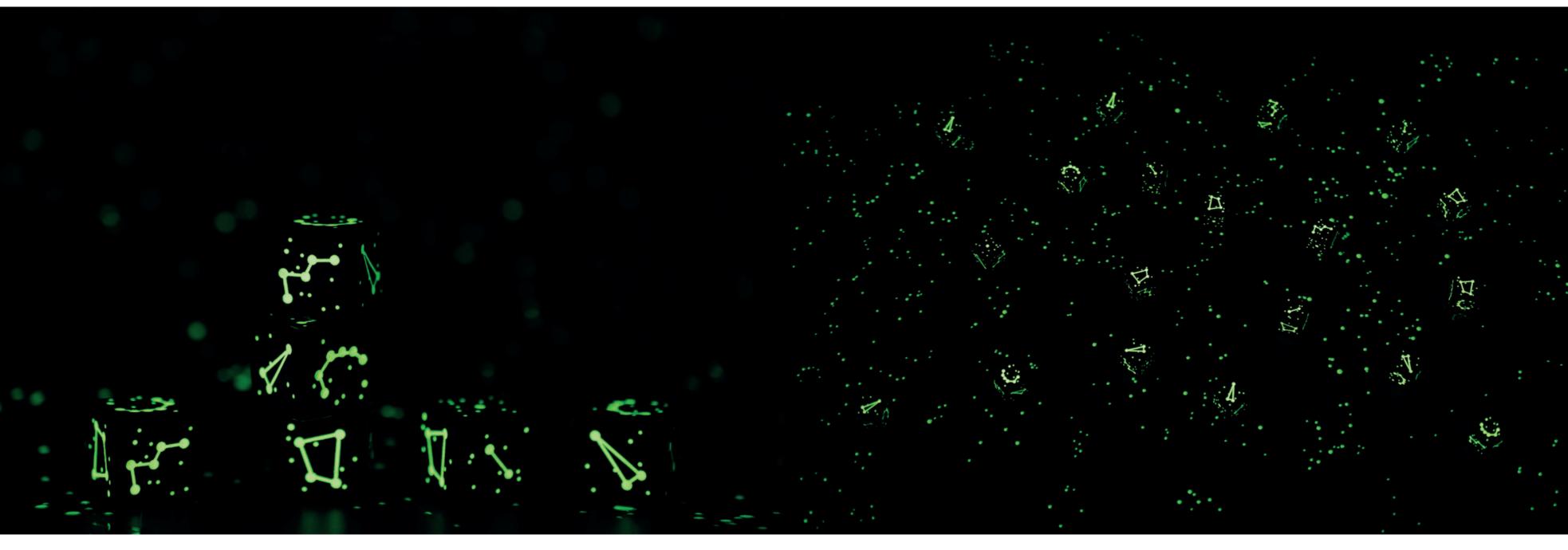
... and beauteous shining of the Heavenly cars. And we walked out once more beneath the Stars. – Dante Alighieri, **Inferno** **Dice** Chessex, Festive, Carousel

Dice Q Workshop, Call of Cthulhu 7th ed.

ARE THE STARS RIGHT?

When the stars were right,
They could plunge from world to world through the sky;
but when the stars were wrong,
They could not live.
- H.P. Lovecraft, *The Gall of Cthulhu*

CHAPTER 7 MACROCOSM IN MICROCOSM



ASTRAL ANSWERS

With a palm full of stars, I throw them like dice, Repeatedly
I shake them like dice, And throw them on the table
Repeatedly, Repeatedly. Until the desired constellation appears
- Desired Constellation, Bjork

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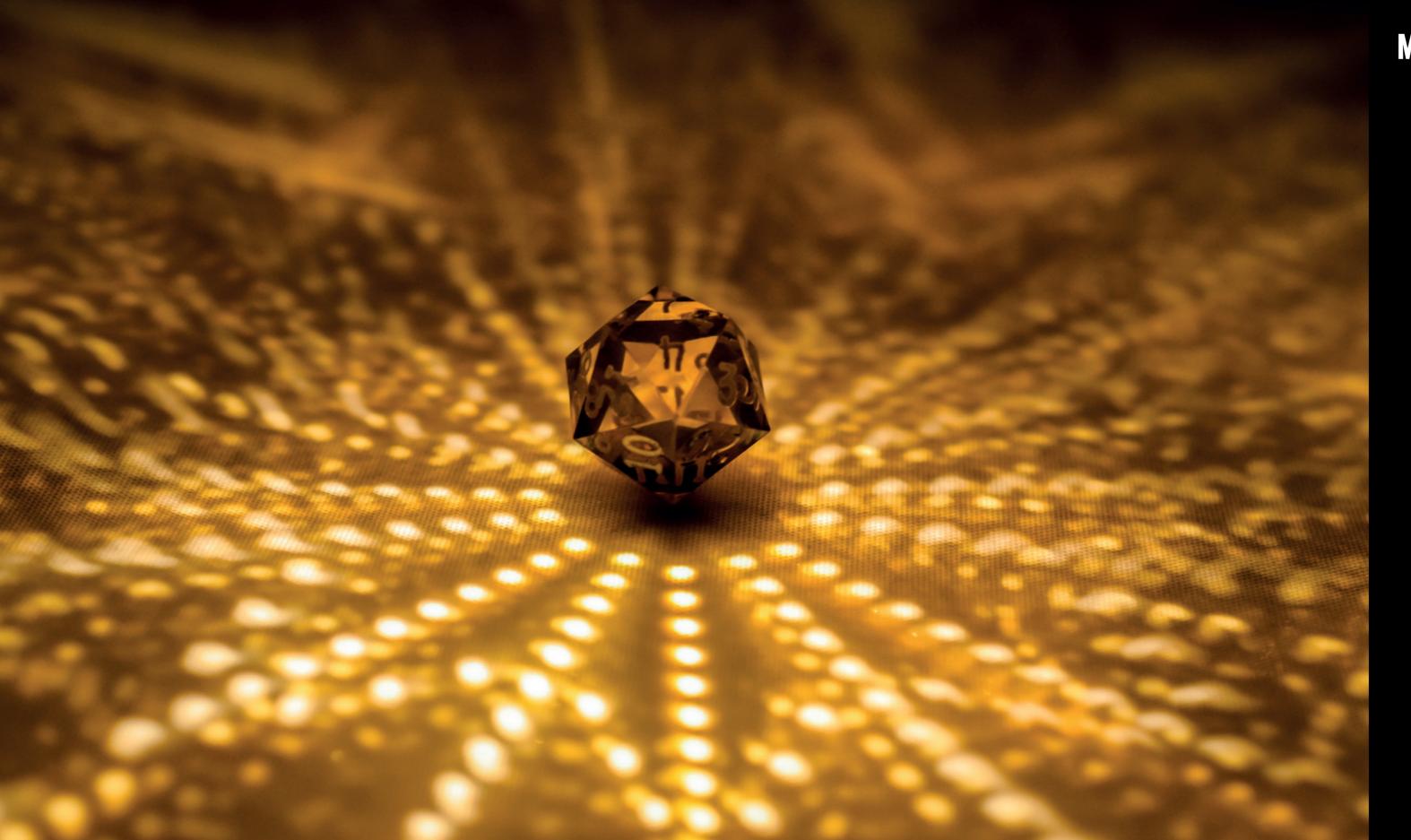
Dice Gio Lasar Design, Constellation Dice

Dice Gio Lasar Design, Constellation Dice

CELESTIAL OMENS

He stared up at the stars: and it seemed to him then that they were dancers, stately and graceful, performing a dance almost infinite in its complexity.

— Neil Gaiman, **Stardust**



MACROCOSM IN MICROCOSM

In the hall of light, they reminded her of her destiny.

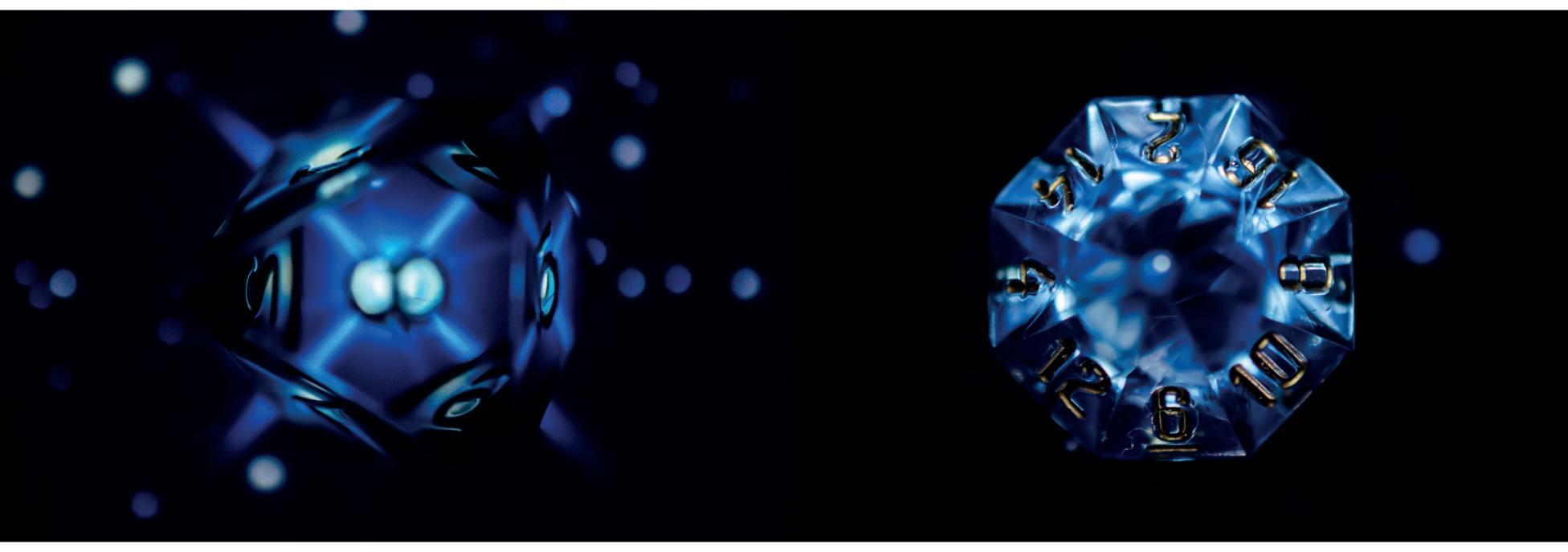
There, all was light, a pulsing gold like the heart of a candle flame, filling eternity

- Katharine Kerr, Daggerspell

CORA SUN-DROP

Dice GameScience, Precision, Topaz

CHAPTER 7 MACROCOSM IN MICROCOSM



VEGA MINOR

A man must have chaos yet within him to be able to give birth to a dancing star.
- Nietzsche, Friedrich, *Thus Spoke Zarathustra*

Dice GameScience, Precision, Blue Moonstone

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Dice GameScience, Precision, Blue Moonstone

BLUE BELLE

There is no future. There is no past. Do you see?
Time is simultaneous, an intricately structured jewel that humans insist on viewing one edge at a time, when the whole design is visible in every facet.

- Dr Manhattan in **Watchmen** by Alan Moore

CHAPTER 7 MACROCOSM IN MICROCOSM



GALACTIC HITCHHIKING

We are now cruising at a level of two to the power of twenty-five thousand to one against and falling, and we will be restoring normality just as soon as we are sure what is normal anyway.

– Douglas Adams, *The Hitchhiker's Guide to the Galaxy*

Dice ZucatiCorp, Made out of a Meteorite from Campo del Cielo, Argentina

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Dice ZucatiCorp, Made out of a Meteorite from Campo del Cielo, Argentina

SCREAMING ZAPHOD

– Douglas Adams, *The Hitchhiker's Guide to the Galaxy*

The computer started to sing. "When you walk through the storm ..."
it whined nasally, "hold your head up high ..."
Zaphod screamed at it to shut up, but his voice was lost in the din of what they quite naturally assumed was approaching destruction.

CHAPTER 8 ELECTRONIC VOLTA

And in the bloodlit dark behind his eyes, silver phosphenes boiled in from the edge of space, hypnagogic images jerking past like a film compiled of random frames. Symbols, figures, faces, a blurred, fragmented mandala of visual information.

— William Gibson, *Neuromancer*



Dice Ulfsark Games, Dragons Scales: Techno



CHAPTER 8 ELECTRONIC VOLTA





LOST TEAR

I've seen things you people wouldn't believe.
Attack ships on fire off the shoulder of Orion.
I watched C-beams glitter in the dark near the Tannhauser gate.
All those moments will be lost in time ...
like tears in rain ... Time to die.

- Batty in **Bladerunner**

Dice Chessex, Festive, Carousel

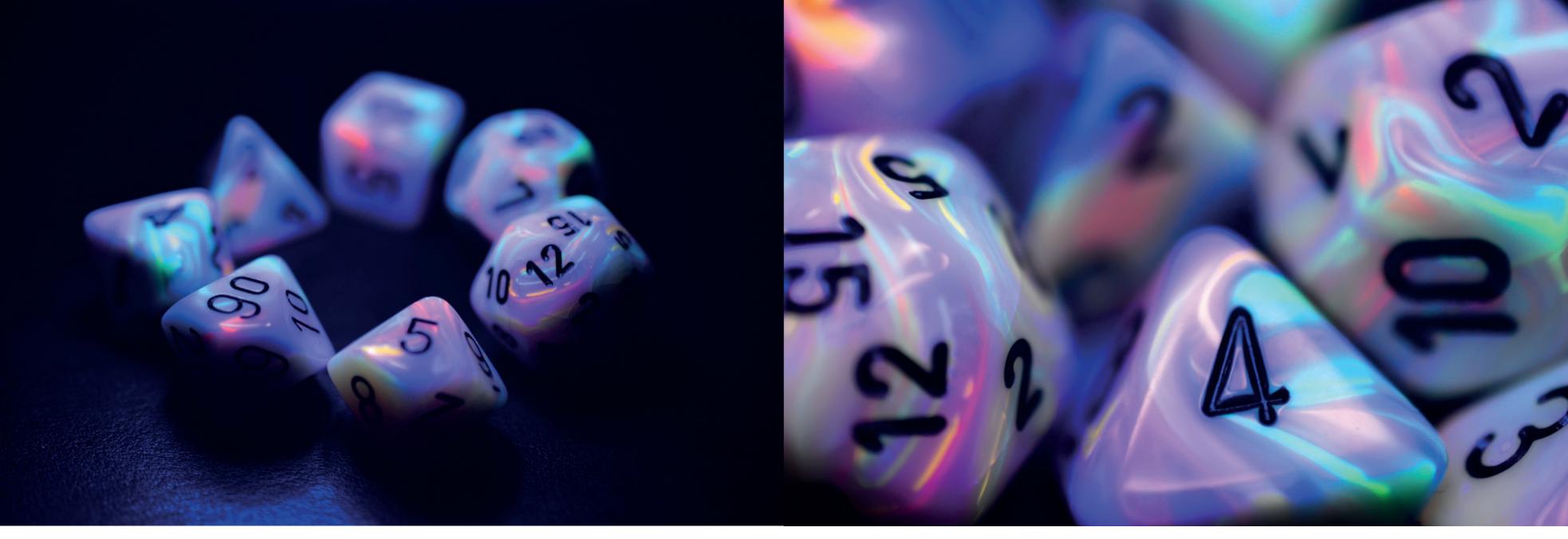
Dice Chessex, Borealis, Aquerple

Have you ever had a dream, Neo, that you were so sure was real?
What if you were unable to wake from that dream?
How would you know the difference between
the dream world and the real world?

– Morpheus in *Matrix*

SPIRIT IN A BUBBLE

CHAPTER 8 ELECTRONIC VOLTA



ORDER OF THE BLACK LIGHT

Fluorescence (emission): $S_1 \rightarrow S_0 + hv_{em} + heat$

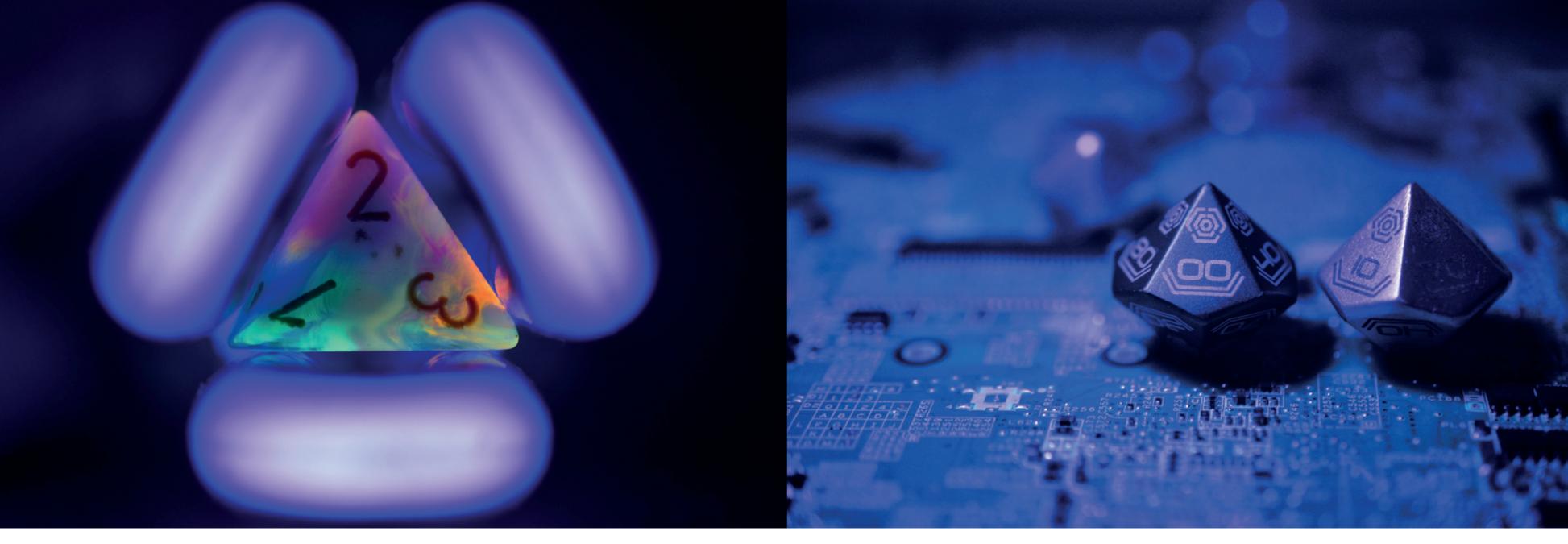
Dice Chessex, Festive, Circus

Dice Chessex, Festive, Circus

UV REVELRY

Dealing dreams and destruction to a pattern plagued world. - Luke Rhinehart, author of *The Diceman*

CHAPTER 8 ELECTRONIC VOLTA



ALIEN BIOHAZARD

I was kidnapped by aliens, they came down from outer space with ray guns, but I fooled them by wearing a wig and laughing in a foreign accent, and I escaped.

– Neil Gaiman, *Coraline*

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Dice Chessex , Festive, Rio

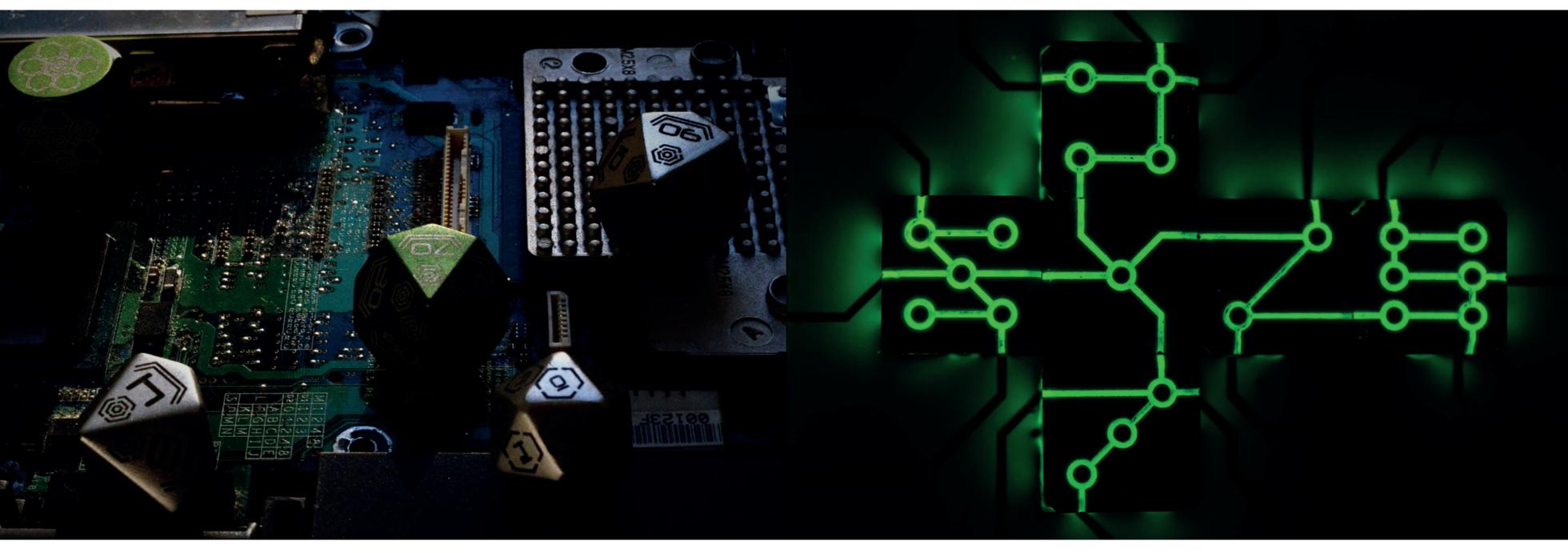
Dice Ulfsark Games, Dragons Scales

GHOST IN THE MACHINE

Nonsense! There's no proof at all that you are a living, thinking life form! And can you offer me proof of your existence? How can you, when neither modern science nor philosophy can explain what life is?

- Ghost in the Shell

CHAPTER 8 ELECTRONIC VOLTA



CIRCUIT BOARD

... destiny spelled out in a constellation of cheap chrome. – William Gibson **Dice** Ulfsark Games, Dragons Scales: Techno

Dice Würfelschmiede, Vertex, Glow in the Dark

VERTEX

A polygon vertex x_i of a simple polygon P is a principal polygon vertex if the diagonal $[x_{(i-1)}, x_{(i+1)}]$ intersects the boundary of P only at $x_{(i-1)}$ and $x_{(i+1)}$.

ELECTRONIC VOLTA



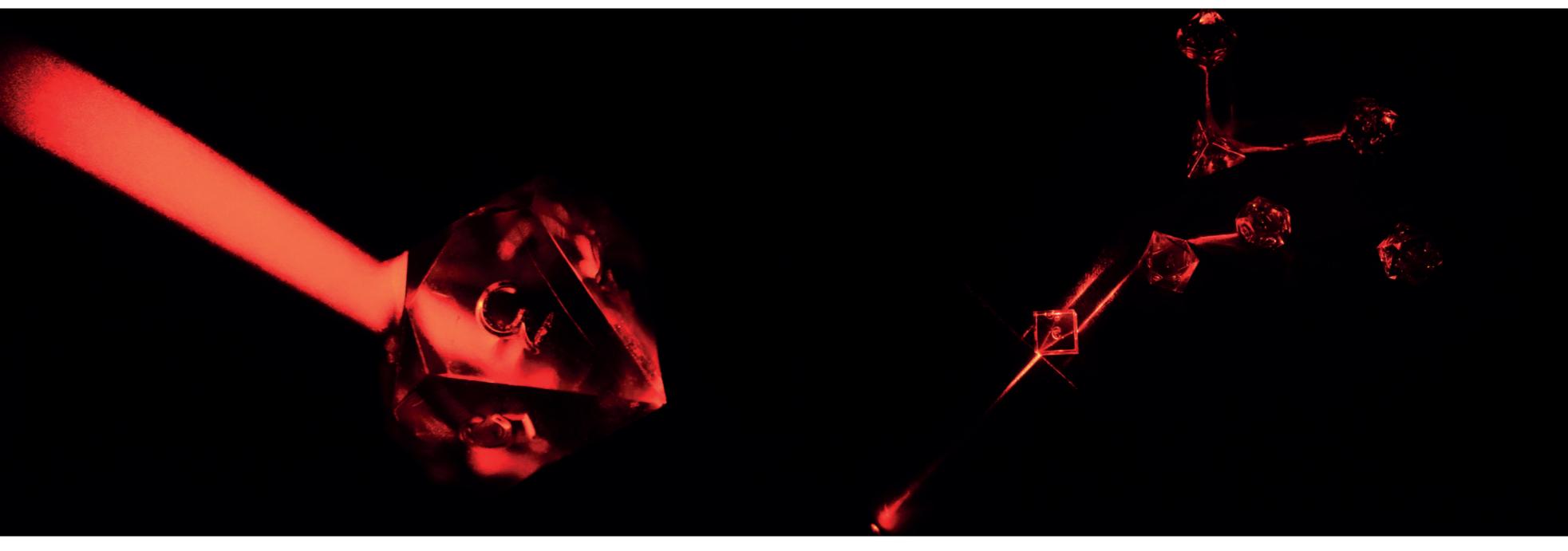
It can only be attributable to human error.

- HAL 9000 in **2001: A Space Odyssey**

THE ALARM

Dice ThinkGeek, Critical Hit LED Dice

CHAPTER 8 ELECTRONIC VOLTA



RUBY RAY

Keep your 'lectric eye on me babe Put your ray gun to my head – David Bowie, **Moonage Daydream** **Dice** GameScience, Precision, Diamond

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Dice GameScience, Precision, Diamond

BENDING THE BEAM

X-rays ... I am afraid of them. I stopped experimenting with them two years ago, when I came near to losing my eyesight and Dally, my assistant practically lost the use of both of his arms.

— Thomas Edison in Fears Hidden Perils of the X-Rays

CHAPTER 9 ACCIDENTAL CATACLYSM

We knew the world would not be the same.

A few people laughed, a few people cried.

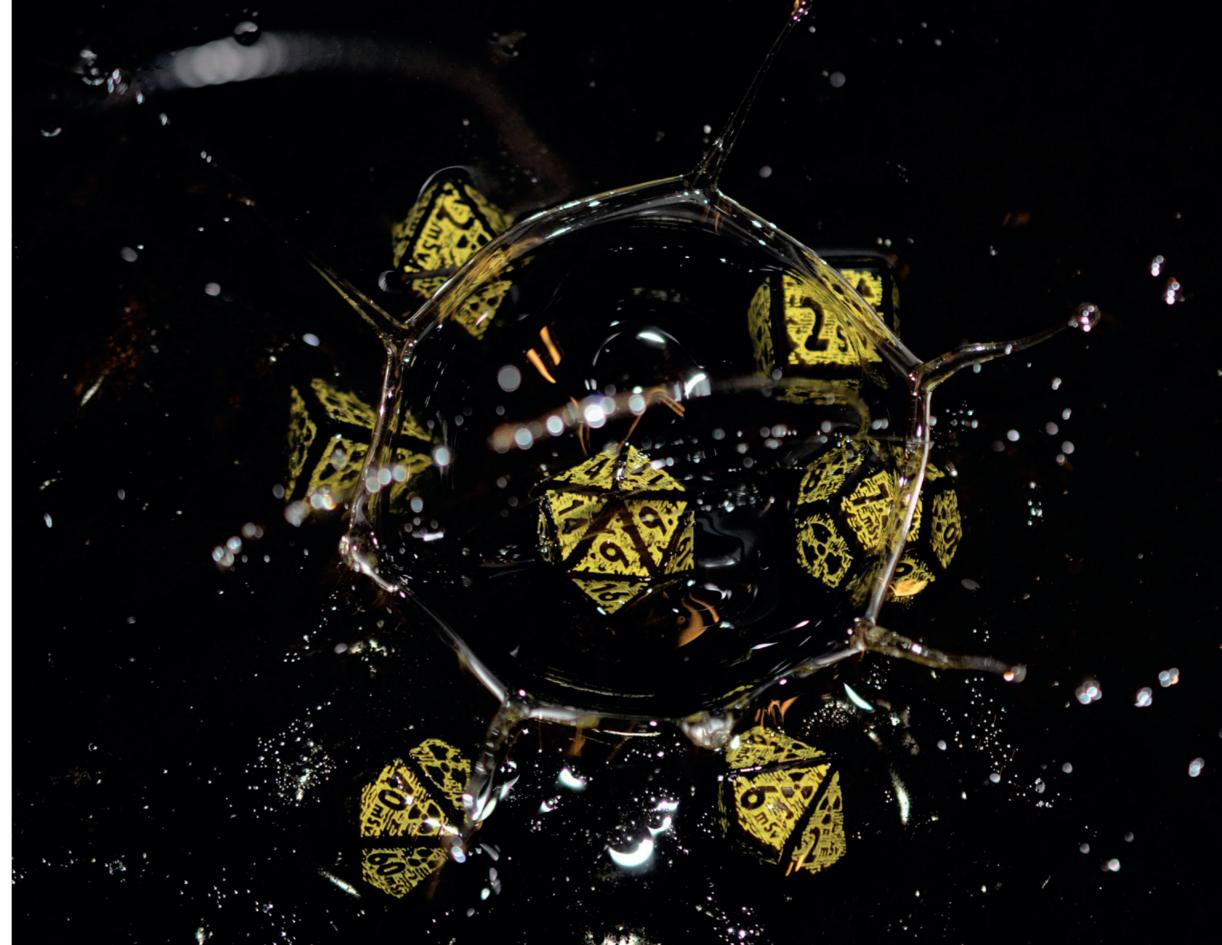
Most people were silent. I remembered
the line from the Hindu scripture, the

Bhagavad Gita; Vishnu is trying to persuade
the Prince that he should do his duty and,
to impress him, takes on his multi-armed
form and says, 'Now I am become Death,
the destroyer of worlds'.

— J. Robert Oppenheimer

NUCLEAR LAB TEST

Dice Q Workshop, Nuke 3D



CHAPTER 9 ACCIDENTAL CATACLYSM



SHORT CIRCUIT

I haven't failed, I have just found 10,000 ways that won't work.

– Thomas Edison

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Dice TDSO, Metal Polished Silver and Gold Finish

Dice Chessex , Festive, Rio

NO THOUGHT OF TOMORROW

Going so soon? I wouldn't hear of it. Why my little party's just beginning. – Wicked Witch of the West Wizard of Oz

ACCIDENTAL CATACLYSM

Sól mun sortna, sökkr fold í mar, hverfa af himni heiðar stjörnur, geisar eimi ok aldrnari, leikr hár hiti, við himin sjalfan. - Völuspá The sun turns black,
earth sinks in the sea,
The hot stars down
from heaven are whirled;
Fierce grows the steam
and the life-feeding flame,
Till fire leaps high
about heaven itself.
- Völuspá

RAGNARÖK

Dice Q Workshop, Metal Dwarven

CHAPTER 9 ACCIDENTAL CATACLYSM



INFERNO

All hope abandon, ye who enter here. – Dante Alighieri, The Divine Comedy Dice Chessex, Gemini: Orange & Yellow

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Dice Chessex, Gemini: Orange & Yellow

SCORCHED MIRTH

Tell me, when was the war over? I asked. 'The war is not over,' he answered.
'Millions are being killed. Europe is mad. The world is mad.'
- Shackleton arriving to a whaling station in 1916 after he had

been away from civilization since the start of the war in 1914.

CHAPTER 9



BEAST BOLIDE

The meteorites of 1908 and 1947 had struck uninhabited wilderness; but by the end of the twentyfirst century there was no region left on Earth that could be safely used for celestial target practice.

– Arthur C. Clarke, *Rendezvous with Rama*

MEPHISTOS HERZ

I am the spirit that negates.
And rightly so,
for all that comes to be
Deserves to perish wretchedly

– Mephisto in **Faust** by Johann Wolfgang von Goethe



Dice Würfelschmiede, Vertex, Glow in the Dark

Dice ZucatiCorp, Made out of a Meteorite from Campo del Cielo, Argentina



ACCIDENTAL CATACLYSM

The world has many times been turned to chaos.
And at that moment this ancient rock, here and elsewhere, fell broken into pieces.

– Dante Alighieri, *The Divine Comedy*

METEOR IMPACT

Dice ZucatiCorp, Made out of a Meteorite from Campo del Cielo, Argentina

He thought there could be deathships out there yet, drifting with their lolling rags of sail. Or life in the deep. Great squid propelling themselves over the floor of the sea in the cold darkness. Shuttling past like trains, eyes the size of saucers. And perhaps beyond those shrouded wells another man did walk with another child on the dead gray sands. Slept but a sea apart on another beach among the bitter ashes of the world or stood in their rags lost to the same indifferent sun.

— Cormac McCarthy, *The Road*

SILENCE

Came the day, the sun scorched me Came the shade of night, the south wind overhelmed me My honey-sweet voice has become strident. Whatever gave me pleasure has turned into dust. Oh Sin, King of Heaven, my bitter fate. - Enheduanna, 23rd century BCE

Dice ZucatiCorp, Made out of a Meteorite from Campo del Cielo, Argentina





AFTER DISASTER

Of the four billion life forms which have existed on this planet, three billion, nine hundred and sixty million are now extinct. We don't know why.

Some by wanton extinction, some through natural catastrophe, some destroyed by meteorites and asteroids.

Dice Q Workshop, Nuke 3D

Dice Q Workshop, Nuke 3D

10 MSV

In the light of these mass extinctions it really does seem unreasonable to suppose that Homo Sapiens should be exempt.

Our species will have been one of the shortest-lived of all, a mere blink, you may say, in the eye of time.

- P.D. James, *The Children of Men*

– P.D. James, *The Children of Men*

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The Thing cannot be described

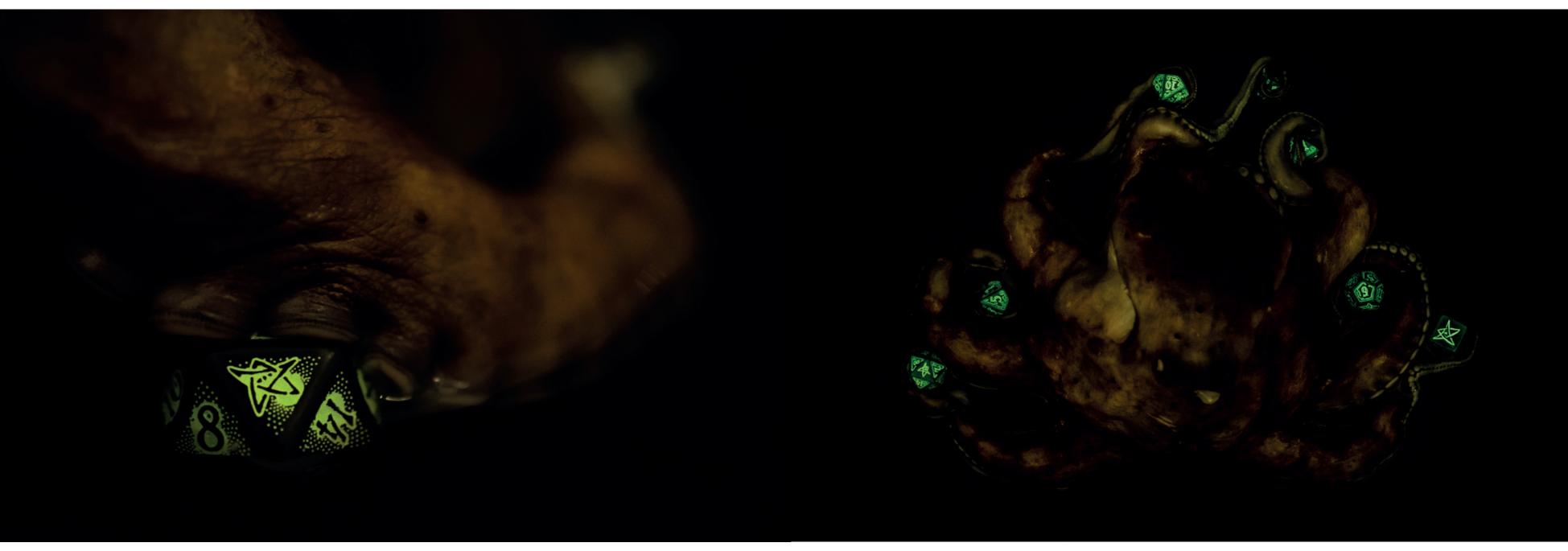
- there is no language for such
abysms of shrieking and immemorial lunacy, such eldritch
contradictions of all matter,
force, and cosmic order.
A mountain walked or stumbled.

– H.P. Lovecraft, *The Call of Cthulhu*



Dice Q Workshop, Call of Cthulhu 7th ed.





CTHULHU'S GENTLE TOUCH

We penetrated deeper and deeper into the heart of darkness

– Joseph Conrad, *Heart of Darkness*

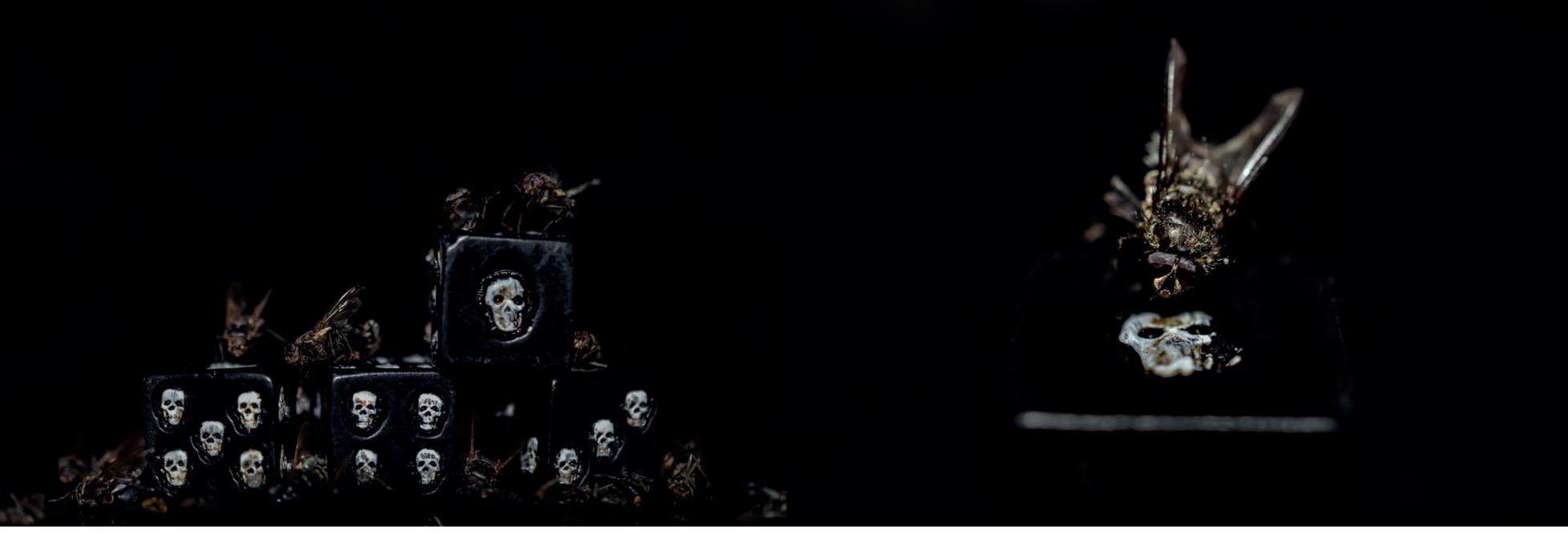
Dice Q Workshop, Call of Cthulhu 7th ed.

Dice Q Workshop, Cthulhu Green & Glow in the Dark

THE YELLOW KING

I pray God will curse the writer, as the writer has cursed the world with its beautiful stupendous creation, terrible in its simplicity, irresistible in its truth – a world which now trembles before the King In Yellow.

- Robert W. Chambers, *The King in Yellow and Other Horror Stories*



FLY OF THE DIE

Life is a game. So fight for survival and see if you're worth it.

– Teacher Kitano in **Battle Royale**

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Dice Dice of Death, Skull

Dice Dice of Death, Skull

LORD OF THE FLIES

Maybe there is a beast ... maybe it's only us. – William Golding, Lard of the Flies



PROTECTOR

They had not gone more than a few yards when from behind came a sound, startling and horrible in the heavy padded silence: a gurgling, bubbling noise, and a long venomous hiss.

- J.R.R. Tolkien, *The Two Towers*, Shelob's Lair

Dice ShenZhen City TianZe Hardware Co Ltd, TZ multicolor dice, Aluminium

Dice ShenZhen City TianZe Hardware Co Ltd, TZ multicolor dice, Aluminium

PUSHER

Bad luck for both of us, we are both boulder-pushers. - Doris Lessing





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SCARAB

He flieth like a bird, he alighteth like a beetle upon the empty throne
- Book of the Dead (ancient Egypt)

Dice Q Workshop, Pathfinder: Mummy's Mask Dice

Dice Q Workshop, Adventures in the East Mark

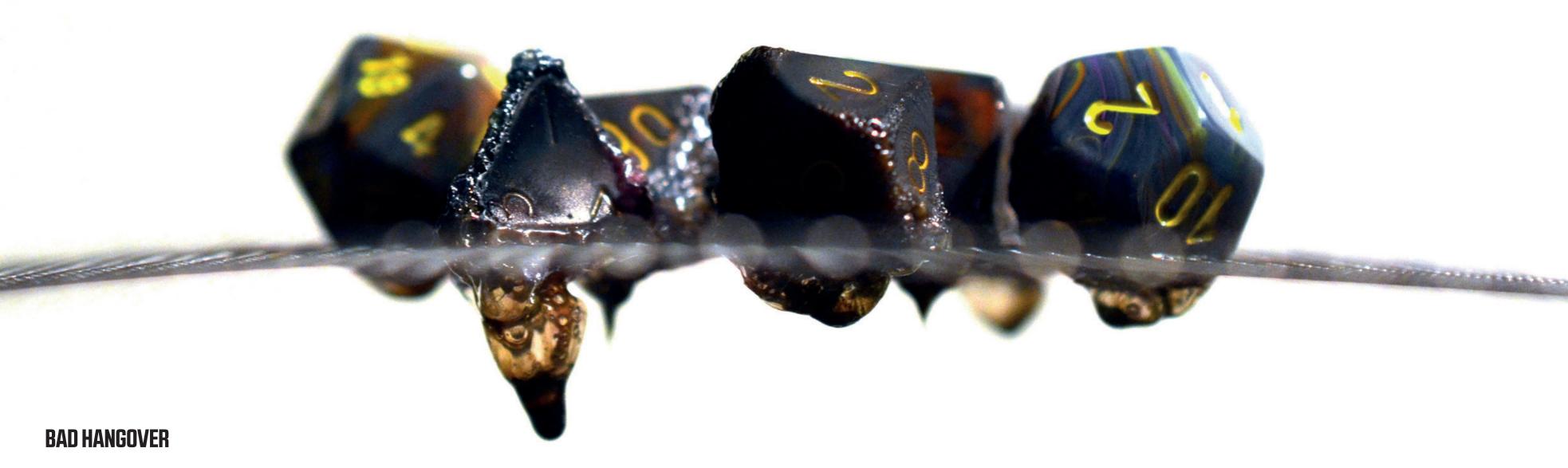
MEMENTO MORI

Oral traditions of the islanders are obsessed with cannibalism; the most inflammatory taunt that could be snarled at an enemy was 'The flesh of your mother sticks between my teeth.'

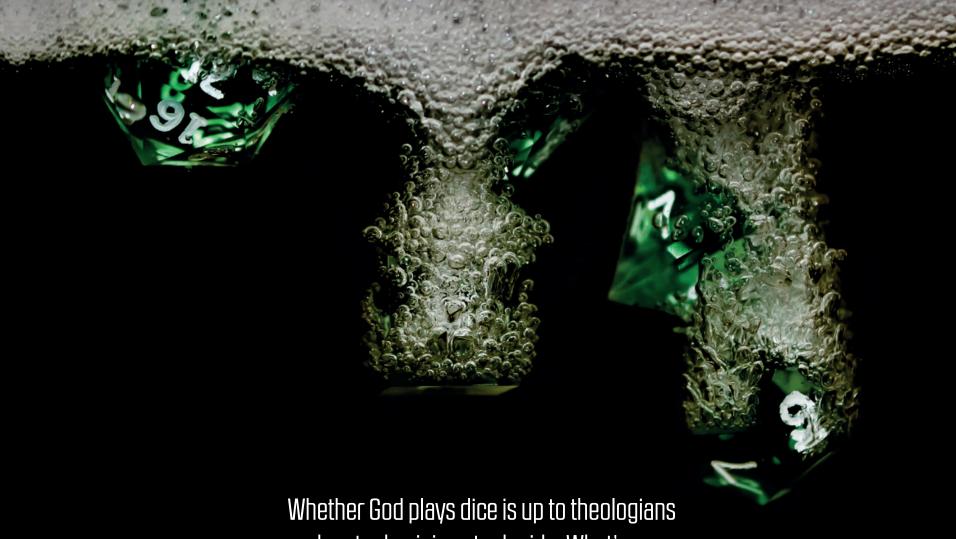
- Jared Diamond, Collapse: How Societies Choose to Fail or Succeed: Revised Edition

The End Is the Beginning Is the End

– Smashing Pumpkins



Dice Chessex, It was at least a set of Festive, Rio



Whether God plays dice is up to theologians and metaphysicians to decide. What's more certain, however, is that many tabletop and role playing gamers do, and they love it. If you have any animosity toward geekiness, there is no need to read on, because this book is a veritable cornucopia for dice geekery.



