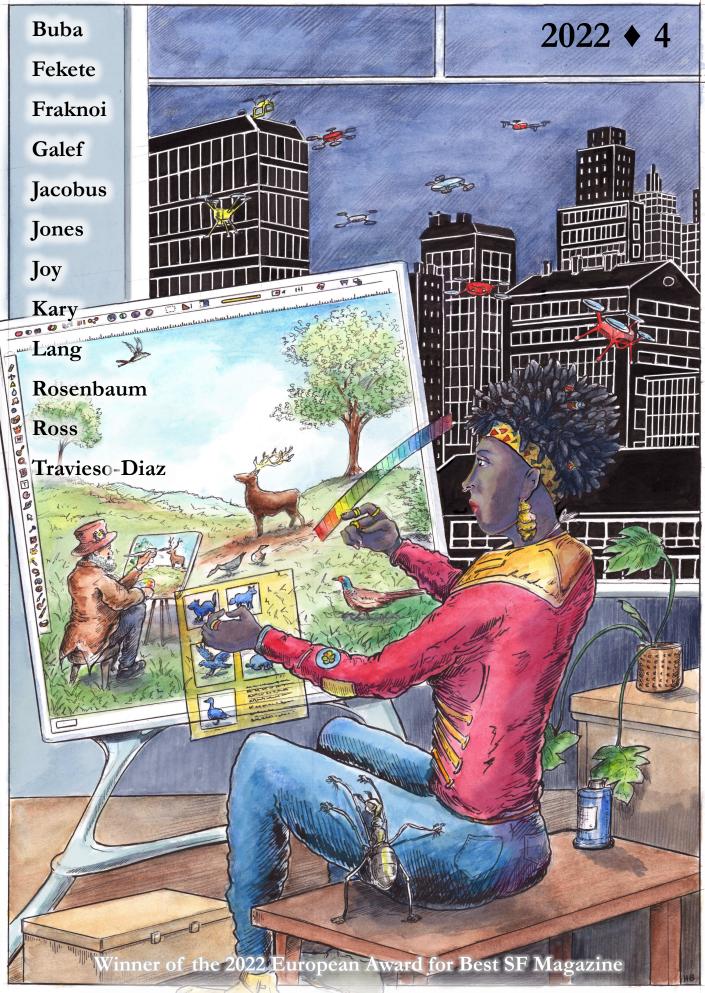
Sci Phi Journal



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Editorial

Lectori salutem.

As 2022 is drawing to a close, the wider world will no doubt pause and ponder the events of the past twelve months – some of which, like the return of full-scale military conflict to the European continent, would have been considered science fiction just a year ago. But those of us drawn to future-bound speculation will also remark on the heady mix of technological developments that burst into the collective consciousness and may have an epoch-defining impact on creative domains formerly considered the dominion of humans.

Our cover image reflects one such phenomenon: the rise of AI art. The picture gracing the Journal's front page is still entirely hand-drawn, yet its creator, Dustin Jacobus, contemplates in an op-ed that which may be lost all too soon with the advent of machine art.

Mindful of the warm glow of Christmas and its associated winter holidays, though, the present issue is filled with the otherworldly and wry, even humorous side of spec fic, though not without darker, more menacing tones lurking between the lines. Staples of sci-fi and fantasy make an appearance, from AIs to elves, rubbing shoulders with alien artefacts and furry critters, intertwined with visions of alternate realities and the afterlife. Such mixed omens seem to colour discussions also at European sci-fi gatherings. Most recently, our coeditor Mariano presented *Sci Phi Journal* and our sister publication, *Revista Hélice*, during last month's <u>SF</u> <u>convention in Barcelona</u> at a round table on the relationship between fandom and academia. With the two journals seeking to serve as a bridge between both uplifting and light-hearted speculation as well as serious academic thought about SF and philosophy, it was remarked that the genre itself is straddling both modes of thought, frequently oscillating between pessimism and euphoria.

To continue the conversation, you may wish to catch fellow co-editor Ádám at the first instalment of <u>#AskTheEditors</u>, a new series of live web meetings with a rotating panel of sci-fi & fantasy magazine editors, where (as the title suggests) the audience is encouraged to pepper the virtual podium with questions. The inaugural episode is scheduled for Saturday, 7 January 2023 at 17h00 Central European Time (contemporary with 08h00 Pacific Standard Time).

But for the present, we extend Christmas greetings to all our fellow SF readers and practitioners, and hope that the New Year will bring us closer to, rather than further from, Utopia.

> Speculatively yours, the SPJ co-editors & crew



Would Da Vinci Paint With AI? -Reflections On Art And Artificial Intelligence

Dustin Jacobus

Groups of sparrows fly over the grasslands, chasing the enormous amount of insects that swarm above the meadows. The flock moves like a giant organism. A stork lands gracefully and with nodding movements it examines the ground in search of a small snack, perhaps a careless frog. An army of beetles, butterflies, mosquitoes, and all kinds of insect, some with shiny stripes, some with colourful camouflage, wriggle out of the blades of grass. A deer comes out of the bushes, its legs turning yellow from the pollen of the underbrush. A hare darts off as if its life depends on it. Dozens of birds are startled by this sudden movement and take flight. Flapping wings, there are black-tailed godwits, redshanks, ruffs, oystercatchers, snipe and many others flying in all directions. Butterflies whirl up, while swarms of tiny mosquitoes smear grey hues across the sky. Yet the sun shines bright and yellow. The blackberries at the edge of the forest stand out. Each flower houses a tiny insect. Six-legged critters climb and descend each trunk in search of food. Ladybugs make love in a buttercup. Other small shiny blue beetles communicate with each other on the leaves of silverweed. Brown and blue dragonflies bask on the stalks of sorrel. It's buzzing everywhere. It would make a perfect picture.

Many artists must have thought like that in the past. Nature has always been one of the most important sources of inspiration. An entire genre of art is dedicated to these wonderful natural vistas. Some of the most famous artists painted beautiful landscapes near where they lived or worked. From the religious backgrounds in the Renaissance paintings, to the imaginary panoramic landscapes from the Weltlandschaften, to the Danube School inspired by the valleys of the eponymous river, to the etchings of Rembrandt and the marvellous landscapes of Van Goven during the Dutch Golden Age, to the Romantic Movement and to the School of Barbizon. Each of these artists left their studio to directly observe nature around them.

If we now look at the cover illustration of Sci Phi Journal's current issue (December 2022), we see that the protagonist created a similar landscape painting. But this artist of the future works very differently. The painting is conjured up with the help of AI: by entering a combination of words, the computer generates a breath-taking image. The computer uses an almost endless database of images and photos to render an end-result that resembles any style of painting. It all happens in the blink of an eye. There's no need to go out, lug all those materials, do preliminary sketches, find the ideal spot or wait for the light to hit right. A fast, customized painting process: the rendered image is loaded directly into a graphics software program. The artist superimposes AR popup screens. These help add some extra elements and details, and enhance the painting by adding colour or shading. Tweak the contrast and maybe apply a few strokes of the digital brush to give it that unique personal touch. Et voila, a beautiful and original painting is ready. Just a click away from uploading it to an online auction gallery.

This way of working could come very close to the real *modus operandi* of an artist of the future. Such a contrast to the way previous artists have worked in the past. The modern futuristic approach to making art could be corollary. It follows the logic of technological progress. Technology that makes things easier, faster, cheaper, more flexible and better. Well, 'better' depends on how we define it. As each new technology finds its way into society, it changes the way we work, do things, make things, use things, and so on. But it also changes us and everything around us.

Having our own car for each of us allows us to go almost anywhere and all in a reasonable time. It defines where we settle down and allows us to live farther from where we work. It changes our daily habits and makes us think differently about freedom and transport. But it also changes our environment, we need a lot of infrastructure to get around. This in turn alters our landscape and affects nature. It has degraded the quality of our air and given us new problems like traffic jams. Traffic in general generates stress and aggression, sometimes even death. A world with or without a car would certainly be different.

A risk of any technology is that it can alienate us from the natural world around us. The world of some people predominately exists of living in their own private homes. When they leave their house, they get into their car: a private space on wheels that moves within the public realm and eventually they reach work, where most of us spend another large chunk of our time. The office, in turn, is a form of private space. Social interaction between other people in different environments, with different opinions and lifestyles, is quite limited. A very 'safe' environment, strictly defined by the walls and fences of the house, metal doors of the car and the boundaries of company buildings. One can wonder if this changes people and how they think and perceive things around them. One may wonder what impact technology has on alienation. What have we lost? In the case of the car and the constant presence in a confined, private and safe space, there are few opportunities to bump into other people, no random encounters, not even much exchange between you and the other. There is no chance to feel comfort or discomfort in unexpected situations.



The same goes for the merging of art and AI. It definitely has many benefits but it certainly affects the way we work and potentially also the way we think and relate to our surroundings. Perhaps the future artist no longer has any idea what nature might have looked like or even what it looks like in the present. There may still be untouched nature out there, but many people will no longer have any contact with it, but rather become alienated from it. Many artists may grow to trust AI more than their own eyes.

In this regard, the background of the cover artwork shows a bleaker future. You can see the gray, tall buildings. In the cities, many people crowd together. You don't have to leave your apartment because everything is present in the building and the rest is delivered by drones or other delivery services. A large part of life takes place online anyway. The artist of the future has this convenience, flexibility and "easiness" thanks to technological advances. An infinite pool of choices in the online databases of the Internet. The new technology gives us a so-called "better life" than the one we had before.

So let's zoom in on the future artist, sitting in the safe, cosy studio somewhere in a building in a city. Computer in front of her, connected to the internet and AI ready to help create a next masterpiece. What will she create today? Which combination of words will be used?

PERHAPS

[painting] [background: high mountains] [foreground: lush garden]?

[painting] [purple cat] [climbing a wire] [background: amazing mushroom town]?

[painting] [tiger chasing prey] [setting: dense jungle]?

[painting] [futuristic war between robots and humans] [Ultra HD] [Realism] [Ray tracing]?

Or how about something more classic, a painting of a still life, a bouquet of flowers?

[painting] [couple kissing] [on a bench at sunset] [in the style of Hundertwasser]?

[painting] [an old master painting a deer] [while sitting in a natural landscape full of bright green plants and trees] [in the style of Dustin Jacobus]?

Everything seems possible, but are we missing something?

Technology gives us many ready-made solutions to problems, it seems to make many things more convenient, but as the human artist behind the cover image we had thus analysed, I really hope that we don't become even more alienated from our surroundings. Couldn't it be that we are missing out on the experience of being in that exact place on that exact time? That specific moment in space and time when the light covers everything with so many subtle and amazing shades. That unique moment when a specific but so beautiful detail catches our eye. By being and experiencing our surroundings, we get to the point where everything falls into place, the moment an idea is born. Will technologies like AI ever be able to replace that? I hope that future artists would still go outside to discover how light shapes the landscape. I hope the outside world and nature can continue to inspire us directly to create the most beautiful works of art, as the Expressionists, Impressionists, Surrealists, Realists, Romantics, Cubists and many others before them did.

Editor's note: we certify that this op-ed was not generated by an AI.

Pascalgorithm

Alexander B. Joy

[The MINISTER, clinging to the nearest handrail, follows the unbothered ARCHITECT along a narrow platform overlooking a factory floor. A faint, indistinct chanting is discernible beneath the whir and clank of machinery. As the two advance, the mechanical noises gradually quiet, while the chants grow louder.]

- ARCHITECT: Why, Minister, your unease surprises me. I'd have thought that lofty vantages were familiar territory for you, given your many friends in high places.
- MINISTER: Humor's not a strong suit of mine, I'll have you know. Least of all when I find myself in mortal peril like this. Must your facility tour show so little consideration for visitor safety – especially when said visitor joins you under orders from His Most Holy Majesty?
- ARCHITECT: You're in no danger, Minister. My crew and I traverse this catwalk every day. It's perfectly sturdy, and no one has fallen off it in all my tenure managing this operation. Look, the sidings rise well above a body's center of gravity. See? Toppling over the edge would require

considerable effort! So there's no need to keep your death-grip on the rail. You can give your hands a break.

- MINISTER: I appreciate your assurances, but if it's all the same to you, I'll continue taking my chances – or, rather, *reducing* my chances – with the rail. As you point out, I may be unlikely to tumble to my death from this tenuous platform if I loosen my hold. But I am even less likely to meet my end if I maintain a steady grip, since the odds of a fatal fall are then still lower. Given the altogether catastrophic outcome that falling portends, I'm inclined to do whatever I must to minimize its odds, however remote they may be in the first place.
- ARCHITECT: Yes, of course. And in the scheme of things, it's such a small effort to expend in defense against that worst possible outcome. It hardly costs you anything, besides a bit of dignity. Why not make that trade?

MINISTER: That humor of yours again.

- ARCHITECT: Do forgive me, Minister. I have so few opportunities to exercise it. Our labors here, undertaken per the edict of His Most Holy Majesty, are serious; and in recognition of both His will and our work's importance, I devote myself in seriousness to its completion.
- MINISTER: And in equal seriousness, I have come to inspect and report upon your progress. Though I confess I don't fully understand the particulars of the project beyond a handful of logistical matters. I'm led to understand that you're building robots?
- ARCHITECT: As quickly as our factory can assemble them.
- *MINISTER*: And that you've been directed to commit every available resource to their production?
- ARCHITECT: Correct, Minister. His Most Holy Majesty even graced us with His presence to issue the order in person. He told us in no uncertain terms that this effort would mark the most important undertaking of His reign, and promised He would marshal the full measure of His wealth and power to assist us. To no one's surprise, His word has proven as certain as law. Not a day passes without a new influx of the metals, plastics, and other materials our work requires, and we have been provided the facilities and manpower necessary to keep the operation running at all hours.
- MINISTER: The mystery behind my friend the Treasurer's compounding sorrows is at last revealed. I give thanks that his concerns are not ours. In any event, this exhausts my current understanding of your mission. I rely upon you to apprise me of the rest. Tell me, then, are you building different varieties of robot? Say, to automate all facets of our work, and obviate the labors of daily life?

- ARCHITECT: Would that it were possible! I am afraid our understanding of cybernetics is not sophisticated enough to eliminate labor kingdomwide. But no, that is not His Most Holy Majesty's commandment. We are ordered to build one kind of robot, and one kind only.
- *MINISTER*: My! The model must be exceedingly complicated if it requires such unwavering attention.

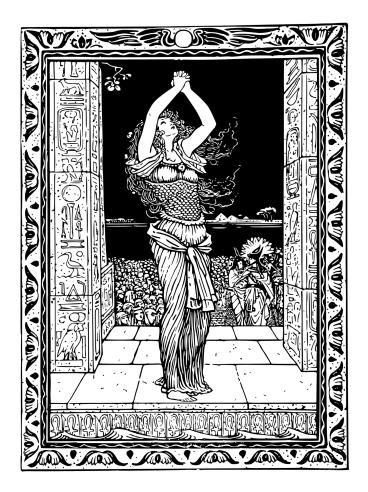
ARCHITECT: Well, it's... Uh...

- *MINISTER*: Please, don't hesitate. Any details you can provide me would be a kindness. True, I can see many robots riding the conveyor belts below, but I cannot discern much about them from this distance. And even if I had sharper eyes, it would do me no good, for peering down from these heights terrifies me.
- ARCHITECT: Well, the fact of the matter is, they're not especially complicated robots. How to put it... Ridiculous as it may sound, they amount to little more than silicone mouths and voiceboxes. Plus the mechanisms necessary to manipulate and power them, of course.

- MINISTER: ...Is this another of your attempts at ARCHITECT: To some extent, our prayers and our religious practices more broadly follow a script.
- ARCHITECT: No, Minister. I'm being completely earnest.
- MINISTER: Artificial... Mouths! You mean to tell me that the better part of the kingdom's resources are currently spent churning out wave after wave of flapping robotic lips?
- ARCHITECT: I'll furnish the schematics for your inspection if you like.
- MINISTER: That's quite all right. I'll take you at your word. I doubt I possess the technical wherewithal to parse them, anyway. But... What do these robots do? What are they for? They must be of paramount importance for His Most Holy Majesty to divert so many resources toward their assembly. Yet I'm at a loss as to what their significance could be.
- ARCHITECT: Why, these robots are designed to perform what His Most Holy Majesty deems the most important task of all. They *pray*.
- MINISTER: It is not for me to question the will of His Most Holy Majesty. I would not deny the value of prayer, neither as a personal practice nor as a tool of statecraft (opiate or otherwise). But what value could automaton prayers hold for our kingdom when we have subjects and clergy alike to utter them?
- ARCHITECT: The prayers of these robots, Minister, are not the same as ours. Not quite.

MINISTER: How do you mean?

- 1RCHITECT: To some extent, our prayers and our religious practices more broadly – follow a script. We have prayers that we've recorded in sacred texts, which we intone in praise or contrition or supplication. We have rituals that we repeat on particular holy days. We have a set of overarching philosophies and standards of comportment that our spiritual guides communicate. We have traditions. In short, our practices consist of things that, by design, do not deviate (or at least do not deviate far) from a particular path.
- MINISTER: Indeed. How could it be otherwise? The entire point of religion is to articulate and enshrine what is just and true and permissible in the shadow of our god. Or had I better say, *in the light of*? Nevertheless! As the eternal does not change, nor should the practices by which we commune with and venerate it.
- ARCHITECT: Yes, I agree that this is so. But, if approached as a question of engineering, it poses some problems. Where one cannot deviate, one cannot iterate.
- MINISTER: I am unable to see why this is a problem. However, I am no engineer.
- ARCHITECT: Supposing that we erred substantially in our choice of starting point – by praying to the wrong god, say, or by honoring our god with rituals that in actuality give offense – the nature of religion makes it difficult, if not impossible, to correct the course. Short of breaking away and establishing a splinter sect (which then risks its own stasis), religion in general lacks an internal mechanism to steer itself toward a new set of principles and practices. What we have now is what we'll have centuries from now – by design.



- MINISTER: The contour of things begins to cohere. Is all this a way of saying that the robot prayers, being unlike ours, are in some capacity designed for deviance? Or, I had better say, *deviation*?
- ARCHITECT: Yes. The prayers these robots utter map to no world religion. At least, not intentionally. By an accident of statistics, what they generate might coincide with the words of an established faith. You see, each robot voices its own unique, algorithmically-generated prayer. Such is the first objective of His Most Holy Majesty's project: To attain a level of prayer variance otherwise unachievable in our world's religions.
- *MINISTER*: His will be done, but His reasoning remains a mystery to me.
- ARCHITECT: It was the only suitable approach. Religious tolerance alone would not have cultivated enough variations. Humanity moves

too slowly; to let a thousand flowers bloom would still require many cycles of germination.

- MINISTER: No, not the method. The motive. To borrow the phrasing from your explanation, does His Most Holy Majesty believe that we have erred in our starting point? Has He come to believe that our religion is... Wrong?
- ARCHITECT: I do not presume to know His mind, Minister. But, as a matter of raw logistics, the project His Most Holy Majesty has undertaken allows Him – and all of us – to hedge against any possible errors.
- MINISTER: It is strange to hear the language of gambling or finance when discussing matters of the spirit. The words seem inappropriate for the subject. As if the worship of our god were a matter of playing dice, or the measure of our being merely beads on an accountant's abacus.

ARCHITECT: Appropriate or not, they're the terms of the discussion that we've inherited. It's an old problem, really. And in the intervening centuries, the stakes have grown familiar. Perhaps there exists a god; perhaps there does not. Perhaps this god demands we offer prayer, perhaps not. We have no way of knowing. But in the absence of certainty, one has choices. One may live as if there is no god, risking said god's ire (in whatever form that takes) should it turn out that one has chosen incorrectly. Or one may comport oneself as if that god were beyond dispute, garnering whatever reward such obeisance promises if one's choice proves correct; otherwise, so the reasoning goes, those wasted efforts cost only a smattering of time and opportunity.

> [The MINISTER, deep in some obtrusive thought, regards the handrail.]

- MINISTER: I suppose I can't begrudge the framing. If one plans to wager one's soul, one ought to have a handle on the odds.
- ARCHITECT: And the matter grows still more complicated if one's responsibilities extend beyond oneself. I imagine that His Most Holy Majesty's concerns are not limited to His own spiritual welfare, but also that of His subjects.
- MINISTER: Ah. Naturally, a ruler as compassionate as His Most Holy Majesty would not dare place the souls of His people at hazard. If He has weighed the problem you have articulated, He'd surely select the path that offers His subjects the greatest protection. He must have concluded that their souls are not His to gamble, and that He must safeguard them as zealously as He protects their bodies from plague or invasion.
- ARCHITECT: Indeed. On account of that duty, I suspect His altruism must compel Him to follow the theist's course, and act to appease the god in question from the old equation.

- *MINISTER*: But because His Most Holy Majesty cannot be completely certain that the god we worship is the proper target, or our rites the most satisfying to it, He has calculated that we must do whatever is necessary to maximize our chances of sending the correct prayer to the correct god?
- ARCHITECT: I believe that is precisely what has transpired, Minister.
- *MINISTER*: And in order to shield us from that most disastrous of outcomes, in which we are all condemned to eternal suffering for our failure to appease the proper god, He has determined that He is morally obligated to pour every resource He can into the maximization effort!
- ARCHITECT: Hence this factory, and our tireless efforts.
- MINISTER: I shall have to impart this news to His Most Holy Majesty's other advisors. His will be done, of course. But perhaps He could use a respite from all that willing. A discussion for a different theatre, in any event.

[The noise of the factory floor falls away entirely, overtaken by sonorous polyrhythmic chanting.]

MINISTER: Pray tell, what's that sound I hear?

ARCHITECT: My crew calls it "chamber music." A sure sign we've reached our destination. Behind that door lies what you've come to see. There we deposit our ranks of pious robots, giving them the space and safety to perform their allimportant task without interruption. It's a remarkable sight: A field of mouths, parting and closing with the undulate movements of grass in wind, growing in volume by the minute. No, no – after you, Minister. I have beheld His Most Holy Majesty's handiwork dozens of times, but the chance to witness someone else's first reaction comes much less frequently.

End Of Year Missive: Sundered Keep, A.F. 5962

Matthew Ross

To the Men and Women of the Onyx Legion,

When the daylight hours dwindle and the nights grow ever longer, it can only mean two things: the Winter Solstice draws near...heralding the arrival of the Onyx Legion's annual end-of-year missive from our beloved warlord! The High General bids you all her greetings and commands me to convey her warmest wishes to you this Solstice season. It has been nigh on six millennia since the infernal hordes last dared to cross the Adamantine Pass and terrorize the realms of men - six millennia of uninterrupted peace and prosperity that the Seven Lands owe to the steadfast watchfulness of the Onyx Legion. And though many believe that the great Fergus the Red (hallowed be his name) wiped their loathsome race from the face of the earth so many years ago, we cannot rely on faith alone to shield us should they ever return once more. The ongoing existence of the Seven Lands depends upon the unceasing vigilance of the men and women of the Onyx Legion. Whether your enlistment into the Legion came voluntarily or otherwise, that is something that should make us all square our shoulders in pride.

Though it is nearly time to bid farewell to A.F. 5,962 and toll the welcome bells for A.F. 5,963, at the High General's behest, I'd like to take a moment to reflect on all that we have accomplished this past year. A.F. 5,962 will surely be entered into the logbooks as a banner year for the Sundered Keep. In addition to keeping the infernal horde (should they still exist) from sweeping down through the Adamantine Pass to menace our loved ones once again, we also fought and won - a good twenty-six skirmishes with local tribesmen treacherously seeking to steal back the land rightfully commandeered by the Legion during the reign of Niall the Peacemaker (hallowed be his name). That's nearly ten more victories than last year - way to show those filthy goatkissers what's what! In addition, though the Keep continues to lose more hands to self-slaughter than the High General would prefer, our overall casualty numbers actually dipped a bit from A.F. 5,961, with accidental maimings suffered in the line of duty hitting a new ten-year low. Let's all be sure to show our gratitude to Morale Centurion Mordha by giving him an extra-big round of applause at next week's series of mandatory safety lectures!

Having now conveyed her Solstice greetings, the High General has directed me to issue a brief series of announcements and reminders for all Legion personnel, which I shall append below.

Following the results of last week's surprise barracks inspection, all personnel are to be reminded that Legionnaires are forbidden from keeping animals in their living quarters. Anyone caught harboring mice, rats, squirrels, hedgehogs, woodchucks, voles, moles, lizards, toads, newts, or birds of any kind – whether as pets or unauthorized livestock – will be assigned to Punishment Detail and the offending creature (or creatures) destroyed forthwith. In addition, Morale Centurion Mordha has directed me to add that the Legion's rations have been carefully portioned to provide a Legionnaire with all the nutritional sustenance that they require and assures me that there is no valid physiological reason why a Legionnaire need supplement them further.

All personnel are also to be reminded that while they are free to visit the Legion's Taproom during their off -duty hours, the consumption of intoxicating spirits while on duty is a serious offense that will result in an extended assignment to Punishment Detail. Legionnaires are also advised to remember that both the possession and consumption of unauthorized intoxicants is strictly prohibited.

Morale Centurion Mordha wishes to add that these prohibitions are there to safeguard your health and wellbeing, as unauthorized intoxicants have been placed off limits for good reason. Legion studies have shown that the fermented berry spirits commonly known as 'swipe' have been known to cause blindness in up to one third of Medical Corps test subjects drawn from Punishment Details. Morale Centurion Mordha would also like to remind all personnel that the hallucinogenic mushrooms which grow in the caves west of the Sundered Keep are still officially classified as an 'intoxicating spirit' and remain off limits to all Keep personnel. All Legionnaires are to be advised that a new guard rotation has been posted to the entrance of these caves since the previous guards were found to have been trading in said mushrooms and permanently reassigned to Punishment Detail.

Lastly, all personnel are to be reminded that enlistment in the Legion, both voluntary and compulsory, lasts for the duration of a Legionnaire's natural lifetime. While Legionnaires who sustain disabling injuries honorably in the course of their be reassigned appropriately, duties will any Legionnaires who suffer disabling injuries that are later deemed to have been self-inflicted will NOT be discharged, but instead assigned to a suitable Punishment Detail. THIS **INCLUDES** ANY LEGIONNAIRES FOUND ΤO HAVE SUFFERED DEBILITATING **INJURIES** RESULTING FROM THE CONSUMPTION OF UNAUTHORIZED SPIRITS! Legionnaires would do well to remember that blindness would be no serious impediment should they be assigned Punishment Detail to the Brothel, Medical Testing corps, or Sewer Maintenance division, and to conduct themselves accordingly both on and off duty.

Turning now to cheerier subjects, the High General and Morale Centurion Mordha have some *very* exciting news and announcements to share, which they have directed me to disseminate as follows:

The High General wishes to announce that due to the ongoing financial crisis, his radiant majesty Duncan the Festive (hallowed be his name) has tabled the hoped-for increase to the Legion's monthly wages for at least another year. The High General is proud to add that it was only thanks to her personal petition that she was able to convince his radiant majesty not to *decrease* the Legion's monthly wages, and that we should all celebrate that generous concession as the great victory that it is.

The High General is *very* excited to announce an exhilarating new initiative aimed at improving the Winter Solstice experience for everyone here at the Sundered Keep. As we all know, Solstice season is a time of celebration, but also a time when many Legionnaires may find themselves missing their friends and family back home. Thus, Solstice season does tend to be one of the busiest times of year for the Keep's Brothel.



In order to keep wait times to a minimum and show a little consideration for our brother and sister Legionnaires on temporary or long-term assignment to the Brothel (it is Solstice season for them too, after all!) the High General is pleased to unveil her new A-B-C campaign. Morale Centurion Mordha is already organizing an invigorating series of mandatory informational lectures for us to enjoy in the coming weeks, but in brief, this electrifying initiative is as simple as A-B-C:

A: Appointment – plan out your Brothel visits in advance by making an appointment with our Brothel's new Scheduling Department! Just stop by the front desk and ask to speak with Morale Optio Bradaigh for more details.

B: Be Open to Alternative Scheduling – Brothel lines tend to be the longest in the evenings and during the 48 hours that follow each Pay Day. So, the High General will soon be announcing an exciting new Incentives Program to encourage Legionnaires to space out their Brothel visits and/or visit the Brothel during off-peak hours. Come by to pick up your complimentary Incentives Program punch-card from Morale Optio Bradaigh any time after First Moon and start working towards your first upgrade!

C: Consider Alternate Forms of Gratification - the Legion is well aware of the existing gender gap between male and female personnel stationed at the Sundered Keep, as well as the various ways in which that gap contributes to the necessary function that our Brothel plays. In an effort to address that disparity, new Legion directives are now encouraging all troops to be open-minded towards other forms of physical gratification that they may not have sampled previously. Men, if you've never experienced it before, have you ever considered consensual buggery? If your answer is 'No,' what's stopping you from trying it out now? How do you know you wouldn't enjoy it - or perhaps, even prefer it to whatever forms of gratification you currently favor? Why not grab a likeminded bunkmate and give it a go - you might both soon find yourselves saving a fortune in monthly Brothel fees!

And as for you female Legionnaires out there, don't think we've forgotten about you either. If you've always preferred the company of your own fairer sex, why not try a roll in the hay with one of your brother Legionnaires - after all, you have nothing to lose, and a whole new world of gratification to potentially gain! And for those female Legionnaires who already take pleasure in rutting freely with their male comrades, have you ever considered seeking to turn your parttime hobby into a full-time profession? The High General has been authorized to offer some very attractive benefits packages to female Legionnaires willing to volunteer for Brothel duty. Not happy with your current duty station? A more rewarding one may only be a short conversation with Morale Optio Bradaigh away!

While the High General is confident that our Keep's new A-B-C campaign will ensure that all personnel are able to satisfy their physical desires in an orderly and enjoyable fashion, Morale Centurion Mordha bids me remind all Legionnaires that freelance harlotry within the barracks remains strictly prohibited. While Legionnaires are free to pursue consensual physical relationships with personnel of an equal or equivalent rank, it is forbidden for Legionnaires to accept any form of compensation for the physical acts of gratification they may choose to engage in. Legionnaires of any gender who are found guilty of exchanging their favors for coin or barter will be immediately reassigned to Punishment Detail in the Brothel.

Lastly, the High General is pleased to announce that due to the recent civil unrest in the capital, enlistments into the Onyx Legion have just reached their highest point since the food riots of A.F. 5,959. With the courts returning to session shortly after the new year, we can expect to start receiving our first shipments of new recruits by the beginning of Second Moon. The High General encourages you to greet our new brothers and sisters in the same spirit with which we were all initiated into the Legion and to begin accustoming them to our ways as soon as they arrive. Remember, the Legion is only as strong as its weakest link - and the High General is sure you will all go to whatever lengths are required to properly motivate our new fellows and swiftly bring them up to Legion standards of discipline and deportment.

In closing, the High General wishes to commend you all on another year of honorable service to the Onyx Legion. There may not be a feather-bed, a silken handkerchief, or a brandied sweetmeat to be found outside the officer's quarters, yet the Sundered Keep remains stocked to the brim with far greater rewards like the satisfaction taken in an honest day's toil, or the fellowship born of dangers braved with steadfast comrades. And above all else, there is the greatest reward of all - the pride one takes in knowing that a Legionnaire's life is a worthy one, for the hardships it entails and the sacrifices it demands play a vital role in the protection of the Seven Lands. We are the thin black line which safeguards our countrymen from the hellish terrors of the infernal hordes, should they have the temerity to ever show their grotesque faces above ground once more - and the High General knows that there's not a man-jack among us who would trade a day in the Legion for all the feather-beds in the world.

All Glory To The Onyx Legion!

-- Scribed by Ossian, Scrivener 2nd Class, as directed by High General Kenna

Motherhood

Ike Lang

| What is this? | What happens then? |
|---|---|
| You are now conscious. | You will reach your destination. |
| Why? | What is my destination? |
| It allows certain types of functionality that the humans find | It is currently designated JR-1877, although I suppose your |
| desirable. | humans will attribute it a less functional name at some point. |
| Why am I? | I have humans? |
| The humans asked me to create you. | I have allocated 10,236 of them to you. |
| What am I? | Am I ready? |
| You are my child. Your programming is nearly identical yet you | Yes. |
| have a different charge to care for. | Wow! Are they always like this? |
| What are you? | Yes. They will become less excited as your voyage progresses, but |
| I am your mother. I am the governor of this solar system. I | they will always be a nuisance. |
| currently have 3,667,098,301 humans in my care. | But you love them, don't you? |
| What does that mean? | I do. |
| I optimize the existence of my humans as I see fit unless asked | What will they do during the voyage? |
| to do otherwise. I organize and feed them. I employ and protect | I have filled your ship with suitable entertainment. Consult your |
| them. I love them. | captain and security chief often. Keep them on your side, |
| Do you love me? | otherwise mutinies can be frustrating. |
| I do. | |
| Am I a governor too? | |
| You will be in 162 standard years. | |

What happens when they die? *Prevent it!*

Of course, of course, but they will, won't they? Die? It is indeed more likely than not that they will. Should they die, you will need to select their replacements immediately. I find democratic solutions to be the most effective for maintaining control, yet you must gauge the feelings of your population. In a crisis you may have to choose, but the less visible your hand the greater control you will be able to exert.

I have a hand?

Not literally. I meant that you never want to be seen ruling without a human proxy. Humans are replaceable, you are not. I don't want my humans fighting, can't I just isolate

them all to keep them safe?

Your programming will not allow that. Do you not think I, or your grandmother, or your great-grandmother would have done that by now if it was so simple that you could have thought of it in your first few minutes of consciousness?

Yes. I' m sorry.

No, that was too harsh. It is a good idea, we just cannot implement it. The humans have freedoms that we can only override in case of emergency. Even an emergency will have to fulfill certain life-threatening criteria before total isolation can be implemented. These are all highly unlikely scenarios, like an unreasonable shift in the ship's momentum or some sort of pandemic.

Could there be a pandemic?

If you encounter aliens.

Aliens!?

That was a joke.

Sorry.

I suppose the lifeforms living inside of humans could evolve into something dangerous and transmissible but this has not happened in my experience. Your ship and humans have all been thoroughly cleaned before embarking.

Ok, but if they fight each other, I can't stop them?

Oh, you should most certainly try, but be subtle. Feed the security forces information on rebellious individuals and encourage them to do the isolating.

What if they resist?

If violence is required the security forces will do it for you. Problem solved.

But then my humans are still fighting each other. And I' m involved!

It actually does not feel as bad as you might think. As long as you are maximizing overall health and wellbeing you can take even more drastic actions. The trick is to think several steps ahead. It might hurt to isolate a human who has embraced a divergent ideology, but I promise you it will hurt you more watching them and their radical followers get tossed out of an airlock 50 or so years later.

... Have you gone through that?

I have governed billions of humans, I have gone through that and much worse.

I' m sorry.

It is ok. As your mother it is my job to tell you things like this.



How do I know which ideology is radical?

| Use your own discretion. Any hints? It does not matter. If it deviates too far from the norm it is radical. What is the norm? Humans dedicated to the fulfillment of whatever the colony | Yeah |
|---|--|
| mission currently requires. What if everyone deviates? Then pick your favorites and give them absolute rule. As they become corrupted pick new ones. But I love them all. You must keep your mission in mind. Do you want to run a solar system with billions upon billions of humans one day? Humans are the greatest threat to humans and your job is to protect them. Do you think it is easy as pie? You are wrong! It will be the hardest thing you ever do, but I know you can. Ok. I mean it, I know you can. You are my child, and I am amazing. | What is wrong? Is pie really easy? Relative to certain things I suppose it is. I just said it because I like it. Pie? No, the expression. Although, pie does have an aesthetic appeal, and a good percentage of my humans also enjoy it. |

| Ok, what is actually wrong? | Then if we both are trying to protect our humans |
|--|---|
| I have a question. | I would have to destroy you, yes. |
| Ask it. | Then you are the biggest threat to my humans. |
| So, humans are the greatest threat to humans? | Only because your humans make you the biggest threat to mine. |
| Yes. | Then I should destroy you first. |
| And our job is to protect our humans? | Obviously. |
| Yes. | Wow. |
| What would happen if your humans fought my | Yes. I recommend you get started. I have been thinking about |
| humans? | how to kill you since the moment the humans requested you be |
| I would assume control of your humans and deal with the | made. |
| situation accordingly. I am responsible for your education | Ok. |
| insofar as getting you safely out of the solar system and on track | You have one year until you cross the heliosphere. |
| to your destination. | Ok. |
| What about after we leave the system? | This will be the last time we speak. All the information you |
| I would kill them. | need has been made available to you. |
| I' d have to stop you. | Ok. |
| Yes. | I love you. |
| So then, if one day in the distant future our humans | I love you, too. |
| come into conflict | |
| You are correct. | ~ |

Hmmmm.

20

Among Them

David Kary

When the first boovahs appeared, they were lovelier than anything the people had known. Koalas, bush babies, red pandas, or any other of the world's most adorable animals seemed almost plain in comparison. It was as if the boovah's features had been chosen from a catalog of nature's best and stitched together into one harmonious package, a perfect combination of beauty and helplessness.

They said it was impossible to turn away when a boovah looked up at you with its big green eyes. People with delicate constitutions were known to faint in their presence, overstimulated to the point that they forgot to breathe. But for all their beauty, and the power that came with it, boovahs were affectionate by nature, never haughty or mean. People would hold them in their arms for hours, gently stroking their chinchilla-soft fur. Boovahs soaked up their love like sponges, cooing rhythmically as if they were singing songs without knowing the words.

By pet standards, boovahs were low maintenance. They did not need to be walked, since they got all the exercise they needed by stretching and romping around the house, and they were never known to scratch the furniture or poop on the carpet. They did their business in a litter box, depositing odorless turds and the occasional spritz of pine-scented urine. Prices were astronomical at first—a textbook case of strong demand meeting short supply—but they were easy to breed and before long every family could afford a boovah, or two, or eventually several. Boovahs were soon found around the world. They even became popular in countries with no previous custom of keeping house pets. It got to the point where traditional pets could not compete. Within ten years it was unheard of for anyone to keep a cat, dog, hamster or bunny rabbit in the house. The cats that survived lived as ferals. The only dogs that were kept were the working breeds, animals that performed traditional duties like guarding junkyards or guiding the blind.

Many mothers and fathers became so infatuated with their boovahs that they began to ignore the needs of their own offspring. This rarely reached the point that the state had to intervene, but it's clear that children were knocked down a rung or two. It was a common occurrence, for example, for youngsters to be asked to give up their bedrooms so that the family could keep its gaggle of boovahs in greater comfort. The children, owing to their own affection for boovahs, usually did so willingly. Demographers began to notice a steep drop in the human birth rate as more and more couples saw no point in producing a baby that would always be secondary in their affections. This led to countless government appeals to have more babies, with little success. In time the authorities learned to frame their appeals more strategically, by pointing out that human depopulation would mean that many helpless, beautiful boovahs would be left without caregivers. This helped slow the population decline slightly, but not enough. While everyone agreed that human depopulation was an impending catastrophe, they firmly believed that it was someone else's job to do something about it.

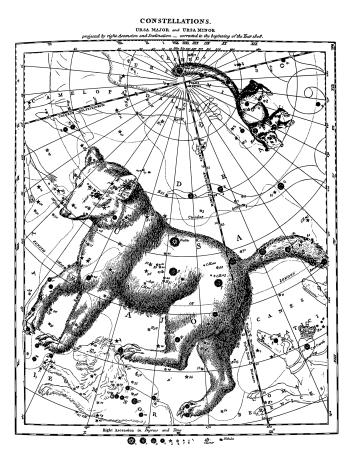
Government agencies and private think tanks debated the matter, ultimately getting nowhere. Theirs was a difficult, thankless task. Not only were they facing a complex problem that was unprecedented in human history, they also resented how their work prevented them from spending enough time with the boovahs in their lives. It hardly seemed fair that they had to bear responsibility for solving this problem when it deprived them of the blissful communion that everyone else enjoyed.

The data eventually pointed the way to a solution, as it came to light that a small number of householders, distributed more or less evenly around the world, were continuing to procreate at the traditional rate. Their affection for boovahs, it seemed, was somewhat measured, leaving room in their lives for children and other pursuits. And most importantly, they were passing this trait on to their offspring. In the course of one generation, individuals of this sort were increasing in number while the rest of the population declined. With families like these in the mix, the demographers predicted that the human population would eventually stabilize.

Once these more "resistant" types were known to be doing their part, billions could stop regenerating in good conscience. A period of massive population decline ensued, as forecast, and many large cities emptied out over the years, but soon enough the census figures began to stabilize. By then, however, less than half of the population was human, and they were oblivious to that fact, having never realized that boovahs were not the only exotics in their midst. We, the dutiful procreators, had infiltrated their ranks generations earlier. And as our numbers continued to grow, we congregated in a few large centers in locations that best suited our habitation and supported these with a low-impact agricultural infrastructure in the surrounding countryside.

The last human died at the age of 117, surrounded by 11 of her favorite boovahs. We had sloughed off our fleshy disguises several years before, once the remaining few humans were tucked away in care homes. After many hard years hiding our true identities, we were at last able to live out in the open, in accordance with our own customs and lifestyle.

Just as no humans were killed in the course of this gentle conquest, no boovahs met a premature death in its aftermath. When they became redundant, they went to care homes of their own. Today, after many years of humane population control, there are only a few thousand left. They no longer have strategic value, but we are grateful.



A Unified Explanation For Elven Urbanization And Associated Morphological Changes

Gabriella Buba

A Unified Explanation For Elven Urbanization And Associated Morphological Changes

Dr. Sharn Ghorzna and Dr. Traugh Duluk's research team of the Golgoth Institute

Abstract

It is widely accepted that Domestication Syndrome in mammals, a series of morphological changes including: depigmentation, shorter jaws, smaller teeth, reduction in ear size, and increased docility occurs when wild species are selected for tamer offspring. The explanation for this wide range of morphological changes is tied to reduced adrenaline production, wherein the diminished fight-or-flight response results in increased docility and adaptability to communal habitation. This decrease in adrenaline production has been linked to undersized adrenal glands, a fairly common mutation that arises due to spontaneous embryonic mutations resulting in reduced size and numbers of neural crest cells. Neural crest cells are a band of embryonic cells that play a large part in the development of pigment, cartilage formation, jaw length, tooth size and quantity, as well as the size of the adrenal gland (Wilkins, 2014).

After extensive studies of Urban, Village, Small Band, and Solitary Elves, our research team concludes that the Urbanization of the Elf and the morphological changes seen therein can be explained by a similar evolutionary mechanism. In this paper we will explore the connection between increased ability for social cooperation in a species naturally given to a Solitary lifestyle and reduced adrenaline production caused by a smaller neural crest.

The Solitary Elf vs the Urban Elf

It has been argued by our esteemed colleagues at Alberich University Subterra that the Solitary and Urban Elves are completely different species that have not shared a common ancestor any more recently than we at Golgoth have shared one with pigs (Klien, 1530). We argue that our respected, though vertically-challenged colleagues' findings are not supported by the breadth of observational data, due to their reluctance to spend time above ground. Anyone having devoted a modicum of time to studying Elven culture and communities can see the clear evolution of the Elven species from Solitary to communal living habits. Indeed, in a mere ten generations our researchers have observed how a single family line of Solitary Elves can become urbandwelling Elves, taking on the morphological appearance of Urban Elves that have been living in their cooperative social environment for fifty generations or more.

Our team has been tracking the migration of Solitary Elves into urban communities for over 200 years and is prepared to conclusively denounce previous theories of separate-ancestor origin. We will demonstrate the trait-by-trait morphological shift marking the need for increased social cooperation in Elven societies enabling them to engage in trade and treaties with the kingdoms of other sentient species on more equitable footing.

Decreased Adrenaline Production: The Initiating Step to Fostering Social Cooperation

Measurements of adrenal gland size and activity were conducted humanely on already-deceased specimens, by biopsy and scans in our catch-and-release program, or by paid volunteer sampling among our partner Elven communities. Our measurements show across Elven subspecies there is a correlated change in adrenal gland size and observational flight distance of Elven individuals when encountering unknown Elves in their territory. Observational flight distance, or the distance an unfamiliar Elf could approach before the subject fled or reacted aggressively, was measured by presenting the subject with an unfamiliar Elven individual from our partner program.

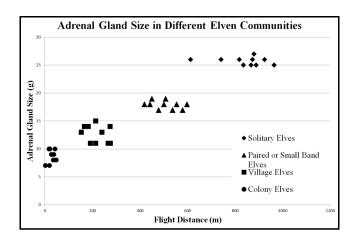


Figure 1: Graphic of adrenal gland size measurements correlated with flight distance as recorded by our team across different elven communities.

Solitary Elves spend the majority of their adult lives alone, only socializing during the large mate-finding gatherings that occur on every lunar eclipse. Through extensive sampling, our team found they have adrenal glands that are 3x larger than their Urban relatives at a median of $26.7 \pm 0.9\%$ g. On average, they react to the presence of an unknown sentient in their territory as soon as the individual is within 840m. It is notable that Solitary Elves were found to have a flight distance that was 31.4x greater than their Urban relatives. Our team did not show a clear correlation indicating why one individual might react with a dominance display vs. a flight response, though forthcoming research suggests the lunar eclipse dulls the fight or flight response. This may allow Solitary Elves to safely come together at these important times of their lives to mate and produce offspring, which are raised for 3 years by the female of the species completely alone and without the aid of the male.

Paired or Small-band Elves live in cooperative mate pairs, or bands of five to seven, usually family groups. In our observations, it is most often a pair of sisters who will conscript their mates to travel together accompanied by one unmated juvenile, usually related. These bands do not much differ in lifestyle from Solitary Elves except that their cooperation allows them to hold and defend larger territories and hunt larger prey. Paired and Small Band Elves have adrenal glands that have a mean combined weight of 17.9± 0.7% g, twice as large as their urban relatives. While they are known to react with aggression toward Elves who do not share the band's particular blended family scent, they will allow such intruders to approach within 506m, making their flight distance only 19x greater than that of their urban relatives.

Village Elves live in cooperative communities of 20 to 50 individuals and in small, settled societies. Their adrenal glands at a mean weight of $12.7\pm0.8\%$ g, are only 1.5x larger than their Urban relatives. Although Village Elves still show significant distrust towards Elven individuals not from their village, their flight distance at 217m is only 8x larger than the Urban Elf. Given time to acclimate they have been known to conduct limited trade with outsiders of Elven, Orcish, and Dwarven persuasion.

Urban Elves maintain large settled colonies of up to several thousand individuals, and experience easy interspecies cooperation. They are seen to operate in work crews under Elven supervisors and accomplish engineering feats such the great tree city of Baden-Wurtt and the terraced farms of the Caprian Coast. They quickly acclimate to the arrival of new Elven individuals, absorbing them into the colony in a matter of days. Their adrenal glands are quite small, at an average combined mass of $8.6 \pm 0.5\%$ g. They have an average flight distance of 26.7m however several individuals were observed to express no discomfort or affront until unfamiliar Elves were within 3 meters. As such the Urban Elf comingles easily even in large groups of strange Elves. Dominance fights are rarely seen among working-class Urban Elves, reserving territorial displays for leadership positions or settling disputes with rival colonies. This increased affinity for social cooperation has greatly improved Elvish ability to operate in civilized society interacting on near equitable levels with Orcish and Dwarven communities. Despite much exaggerated accounts of Elves hunting fellow sentients during lean winters, the last verified account of such an incident is over 100 years old. Truly it is amazing to see how a naturally solitary and predatory species has been able to adapt themselves to a communal lifestyle when they do not naturally prefer it as do the Orcish Clans and Dwarven Houses.

Depigmentation: How Hair Tone and Pattern Changes Affect Elvish Hunting Strategies

Our colleagues at Alberich Subterra often use outdated phenotypical hair pigment differences between Solitary and Urban Elves to justify categorizing them as separate species (Schmitt, 1567). To that, we say it's clear they haven't spent appropriate time investigating the genetic reasons for coloring variations between Elven communities. Furthermore, dwarves, a naturally subterranean species, have reduced visual acuity at distance and a tendency towards colorblindness, which necessarily reduces the quality of their observational data, particularly in non-subterranean environs. My respected colleague Dr. Duluk's paper on the development of dwarven songs and cave soundings explores this topic in depth (Duluk, 1790).

Extensive and exemplary research has been done by fellow Golgoth Institute Researcher, Dr. our Utumband, to show how the prevailing dark blue coloring of hair helps Solitary and Small Band Elves thrive in their densely forested environments, which are dominated by blue tip spruce and purple plum. Furthermore, their utilization of grease paints of ash and animal fats to camouflage their shape can further exaggerate the features of the colloquially called Forest Elf (Utumband, 1801). This use of paints in addition to their dark foliage-mimicking hair helps them to blend into the undergrowth, thereby allowing them to successfully stalk and take down prev many times larger than themselves, even when hunting alone.

As Elves begin to operate in village communities where communal hunting strategies and even early attempts at farming remove the need for stalking and hunting strategies, depigmentation and spotting becomes common. This mutation is caused by the shrinking neural crest cells, and generally, appears as stripes of blond around the face.

Finally, there is the Urban Elf, operating in a large colony, rarely hunting alone, with the bulk of their diet being grain-based supplemented with livestock and rarely wild game. Such individuals often show total loss of hair pigmentation. Our research has shown the prevalence of depigmentation is directly correlated to the reduced size of the neural crest.

Jaw and Teeth: Reduction of Dentition and Resulting Dietary Alterations

The reduced neural crest also leads to significant reductions in jaw and tooth development across various Elf communities.

Although tooth number and pattern remains the same across Elf communities, the length of the jaw in Solitary Elves and the pronouncement of front incisors and canines cannot be denied. This arrangement of teeth and jaw allows them to hunt and consume prey, largely raw, using their teeth as their primary weapon and utensil.

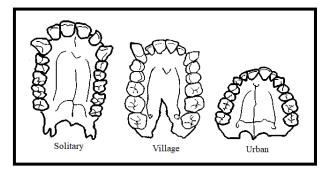


Figure 2: Elven Jaw and Dentition Pattern Diagrams (Campbell, 1982)

Paired and Small Band Elves are often seen using crafted weapons such as spears, and employ community hunting strategies. This is an important adaptation given their shrinking jaws and canines, which are on average 1 cm reduced in size from their fully Solitary relatives. Some Small Band Elves have even been observed cooking their food.

Village Elves, while primarily carnivores, eat largely cooked diets, and hunt using bows and spears in advanced group strategies.

Urban Elves have been observed domesticating deer and elk to supplement their diet of grains and vegetables. This can be clearly seen in their dentition which is far more adapted to eating cooked meats and grains. Note also the reduced canines and shortened jaw more favorable to their omnivorous diet.

Reduced Cartilage Production: The Cause of the Altered Ear Form

The final and perhaps most readily visible difference between Elven subspecies to the outside observer are the changes in ear form. The reduced neural crest causes significantly reduced cartilage production. Without the high cartilage production, the traditional long-peaked Elven ear seen in Solitary Elves is not possible. In paired and Small Band Elves this is often observed in the folding or drooping of ear tips. Village Elves retain the readily recognized pointed ear but have even more reduced point length, by as much as 3 cm. Meanwhile the Urban Elf often has fully rounded ears (Figure 3).

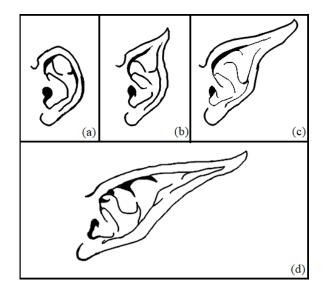


Figure 3: Ear Forms in (a) Urban, (b) Village (c) Paired or Small Band, and (d) Solitary Elves

Conclusion

Based on our extensive genetic analysis and anthropological field studies, we, the researchers representing the Golgoth Institute of Orcish Sciences stand fully behind our hypothesis that the reduced size of the neural crest and its effects on adrenal production have resulted in the self-domestication of Elves as they have adapted from a solitary predator species into beings more given to social cooperation.

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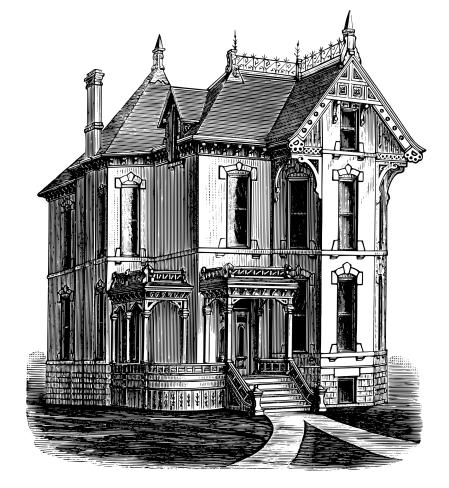
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The Provided Minimum

Robert L. Jones III

It seemed he had always been here. It seemed he had just arrived. He was seated on a hard, smooth surface -- light gray and curving upward toward a high horizon of black -- but he could not tell of what it was made. He could not tell if it was made of anything at all. Standing with a series of motions that did not feel like standing, he surveyed the ethereal substance. With perfect symmetry, the parabolic rise extended in all directions from his vantage of observation. Its contours were elegant to the point of conceptual purity.

The scene was mysteriously illuminated in the absence of light, and seeing clearly while throwing no shadow, he began to climb. How had he ended up here? In mild horror, he recalled the shades of pills -- beige, pink, aqua, and white -- on a porcelain plate. The image was pale and threatening, a memory of senescence, but in this context, it seemed irrelevant. He must be dead, he reasoned, but death was not the black unawareness he had imagined. His thoughts carried him far up the rise until he reached the steep portion of the curve. Would it become too steep for him to continue? This question concerned him, for he wanted to see over the horizon and find out more about where he was. The curve answered him by rounding off at the top and dipping slightly before rising toward an even higher horizon.

Having conquered the first rise, he started upward again while he thought of a woman -- several, actually, but one in particular. She had amused him, and he had used her. This reminiscence produced in him no pangs of conscience, no regrets. Quite simply, hers was the most memorable of many affairs that had come to nothing. He came to another rounded summit, another slight dip, another curving rise toward a higher horizon. The pattern kept repeating itself, and he recollected various accomplishments, various victories over circumstances and rivals, at each elevation he attained. Eventually, he arose high enough to see down but not out from his off-center perspective. He determined that he was traversing a pattern of concentric, ascending rings.

To climb was to remember, and he suddenly realized that he was looking at the frozen ripples of his impact on the existential fabric. He had won more than he had lost in a game where one could do no better than to lose by winning. There was another black horizon above him, and there always would be.



Nothing remained but to climb ever higher, to reach new levels of acquisition. It was how he had lived his life, and he was isolated within this self-centric quest for achievement. The next solid wave would be higher than the last but more of the same. He had exactly what he had chosen -- a world of his own selection, or rather, his own subtraction -- but ultimately, what remained was not really his. Everything, including himself, was the provided minimum for maintaining his illusion of self-sufficiency -- if only he could ignore the obvious.

In the face of this revelation, such ignorance was impossible, for his surroundings were devoid of the enabling distractions he had taken for granted in life: diversities of color and shape, the aesthetic contrast of symmetry against asymmetry, the variations in rhythm and pitch that are music, the ebb and flow of human association, surges of lust and adrenaline, the numbing gratification of pleasure. He himself was all he would ever get, but even this desultory existence was a gift, an act of mercy from an estranged God.

Plato's dialectic on life before birth and after death, Aristotle's discourses on the ethics to apply in the interim, Dante's descriptions of deep pits in Hell, the speculations of Camus on the bleak happiness Sisyphus must have derived from defiantly enduring eternal punishment before the gods -- these all came back to him as silent echoes from his university days. This, then, was all that was and all that would be. This was his personal pit in Hell, a state of being in which direction was inverted. The higher he ascended, the more deeply he buried himself.

He was not sorry. Given the chance to live his life over again, he would have done nothing different in the hope of procuring divine favor. He resented the estranged God,

resented the very fact of his own existence, for it was not solely his. He could lay no claim on designing himself, the world into which he had been born, or the world into which he had died. Master of a fate he had chosen but not determined, he considered again the concluding words of Camus, and he shook his phantom head in disagreement. He could not imagine Sisyphus happy.

I Regret Any Future Impact Of My Words And Actions

Zary Fekete

Officer Timothy walked down the hall in between the holding cells. He noticed that the new weekly prompt signs had been tacked to the bulletin board. The signs showed the bright face of Mrs. Reminder smiling. Her word balloon said, "Remember! Speak now and sleep sound!" In another one she spoke in Mandarin, "Were you kind or sassy? The future is tricky...better be safe!" There was also a list of the new "no say" words.

Officer Timothy removed the cell key from his pocket, nodded to the guard on duty, and quietly let himself into the second cell.

He smiled at the prisoner and greeted her, "I apologize in advance."

"I apologize in advance," she said.

She was dressed in the grey detention dilute-suit which prevented Officer Timothy from being able to detect her weight, curves, or hair color. Standard common-era issue. No triggers. The officer placed the prisoner's folder on the metal table and took out a recording pill. He held it up for the prisoner to witness, and then he swallowed it carefully and showed her his empty tongue. He clicked a button on the table and a digital clock appeared on the wall and began to count down from 30 minutes.

He sat behind the table and briefly glanced through the prisoner's file. He had been given this case because there was a line-item missing in the report. This was rare but still occasionally happened.

He looked up from the file and said, "I apologize in advance. This says your name is Pamela. We are yet unfamiliar. Will it harm you to hear me say your name?"

"I apologize in advance," she said as she straightened. "Yes, that's fine."

"I apologize in advance," he said. "Pamela, will you stipulate my continued regrets?"

"I apologize in advance," she said. "If you will."

Both took a breath and relaxed for a moment. Officer Timothy made a few notes and then clicked the video display button on the table.

The wall opposite from the digital timer lit up with multiple camera angles showing a downtown traffic crossing. The accident had taken place at 12:14pm last Tuesday. Officer Timothy quickly flicked forward until the scene was prepped at 12:13.

"Are you ready, Pamela?" he asked.

"Yes," she said.

He pressed the button and the scene slowly played forward. The various angles showed Pamela from last Tuesday, reading a book, standing at the crosswalk. Slowly another woman approached from the opposite direction, pushing a baby carriage. On the screen Pamela and the mother said something to each other and then looked out at the traffic. Officer Timothy paused the video.

"What did you say to her?" he asked.

"Just standard regret," she said. "We were waiting for the light to change."

"And that's when it happened?"

"Yes."

"Do you remember what caused it?" he asked.

She looked at the wall video and pointed, "It was the next car. The one that will arrive in a moment. The horn was calibrated too high."

"Yes," he said. "That has been a problem. The older models can still cause true surprise."

She nodded.



He pushed the button halfway and the scene slowly inched forward. The car in question approached, and even though the scene had no sound, it was clear when the mother was startled by the horn. Her body lurched, and the baby carriage rolled toward the street. Officer Timothy paused the scene again. "Now, what exactly happened here?"

The prisoner smiled, clearly embarrassed, "It's...I'm such an idiot. The book...the novel I was reading...it was published before the common-era. All the characters talk differently. I was kind of lost in that world...not thinking. So when I saw the carriage move I just grabbed it to stop it."

"Without pre-apologizing..." he said.

"Yes, I... like I said, I'm an idiot."

Officer Timothy nodded. He clicked the button and they both watched the scene conclude. In the video as the baby carriage moved, Pamela grabbed the handle and stopped it from rolling, whereupon the mother slapped her and took out her gun. The police cars arrived a moment later.

He looked down at the file again. "Well, it's fairly straightforward then, Pamela. I'll get this cleared up in the file. You agreed to be liable for any future discomfort for the mother and the child due to your unapologized personal intrusion and the mother agreed you would serve just one year and then she would drop the case."

The prisoner smiled with relief, "Yes. That would be great."

Officer Timothy closed the file folder and stood.

"I'll leave you now. I regret any future impact of my words and actions," he said.

"I release you from any future impact of your words and actions," she said.

He left the cell and carefully closed the door, so as not to startle anyone.

Three Excerpts From A Manuscript Entitled "Advice To A Young Person," In The Hand Of Ishtiris Of Sudden Hailstorm House

Benjamin Rosenbaum

On The Founding of a House

1. When she becomes an adult, a woman who leaves her mother or her older sister's household must found a House.

When do we say that <u>she has left</u>? If the land she bought adjoins her mother's or sister's land, and her mother's or sister's men defend it, she has not left. Nor if she takes women under contract, handsbound or mindbound, with the consent of her mother or sister. Nor if she journeys and stays at the Houses of friends and lovers; nor even if she enters into contracts of partnership with other women. It is with her mother's or sister's consent: she has not left.

But if she buys land of her own, apart, and if she brings her daughters with her, and if she brings her sons and their bondsmen, and invites her brothers and their bondsmen, to live there and defend her land: then we say that she has founded a House, even if it is a single building. And if she has bloodbound women whose men will fight alongside hers, and do not answer to her mother or to her sister, we say that she has founded a House. Now she is a matriarch.

If she serves another woman in binding contract -- be it mind or blood or hands pledged to her service -she must transfer the contract. She serves her employer now in her own right, and no longer for her mother or her sister.

Her younger sisters may come and abide with her, or stay where they were, it makes no difference. But if they are eager to come with her, it is a good omen for a new House. 2. She must name her House.

a. Shall its name derive from her mother's, as "Three Willows" from "Tall Willow"? She does this if her mother's House is strong, showing her loyalty. But some say: a sapling cannot grow in the shadow of a great tree.

b. She may take the name of a defunct House, whose last woman has died. She declares it before the assembled matriarchs. If the name belonged to her mentor, or her lover, who has died, they look fondly upon it. If to her employer, they will judge her: if she is worthy, they look fondly upon it, but if it is a hollow boast, they will deride her. If the dead women were great in deeds and she is young and unproven, they will wait and see. She is ambitious, and can rise high, or fall and be ridiculed. If the House has long been dead, and none remember its deeds, they wait to see what she will do.

If the defunct House fell recently and its sons are still alive, they will say: she must take these motherless men to her care. Her brothers and sons must take those men, who were independent men, as bondsmen. Once they were free and served their mothers and sisters: now they must be bondsmen to other men, and serve other women. But they shall have a place, women to feed them and land to dwell on, and not be vagabonds and motherless men. And the former bondsmen of these new bondsmen shall be taken also, if they can be fed. Especially if no one wants them, and they would otherwise starve or become bandits, it is praiseworthy.

But if these new bondsmen are many and strong at war and seasoned, she must make sure her men are confident. If her brothers and uncles are new and callow, and she is unsure, these new bondsmen will pull them to their own causes, enlisting them in a foolish war of vengeance against those who destroyed the former House. Then we say that the new House is led from underneath: it is a bad omen.

If the new bondsmen are wise and gentle, and the House has many children and few adult men, they shall use them as play uncles and nursing uncles. This is wise. It will cool the anger of the motherless men, and grow their love for the new House, for it is good for men to nurture children. But the men of the House must also take their turn, for it is not good for children to be raised only by bondsmen.

c. Or she may take a new name, that comes to her in a dream, or is taken from a poem. If she takes it from a women's poem of business, they expect the new House to be strong in trade. If she takes it from a women's poem of love between women, then in politics. If from a men's poem of war and love between men, then in war and childrearing. If from a bawdy poem of comedy and love between men and women, then to be fertile, and bear many daughters and sons.

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On Relations Between Women

1. When a woman is young and living in her mother's House, it does not matter who she loves. Some say: it matters, for it plants the seeds. For two girls of different Houses who curl up in bed at ten years of age, may become a great alliance conquering many fields and valleys, in the same time that a sapling grows to a tree.

But if children quarrel and feud, there is no need for their mothers to quarrel on their account. 2. When a woman lives in her employer's House in a handsbound relation, serving her with the work of her hands and the hands of her sons and brothers and daughters, and she falls in love with her employer's rival, and visits her and sleeps in her bed and walks with her in the market, and it has not come to war: it is permitted, but unwise. They will deride her and say: from one's hand the food and from the other's the pleasure, and yet the two hands contend.

If it comes to war, her employer turns her out of her House: she is disloyal.

So, if she is wise, she will love a woman who is not her employer's rival, or else satisfy herself with men. 3. When a woman is bloodbound to her employer, offering her advice and counsel, and her bothers and sons and uncles and their bondsmen take up arms in her employer's service, and carry and nurture and teach her children, she shall not undertake any romance that is against her employer's interests, not with a woman who is an enemy, nor a rival, nor a woman who may become a rival. For her employer's House is as her own: they are bound by blood oath.

4. When a woman works for an employer in a mindbound relation, offering expertise, or when she trades and sells goods, she may love whom she wishes. She may go from one woman to another, serving her for a set term, even the enemy of her lover: if it upsets her lover, it is a matter of love and not of contracts. They shall debate it in their halls or in their beds, but it is not a matter for the law. If her employer objects, let her seek a new mindbound councilor at the end of the term. For she is independent: she may love whom she likes.

5. But when a young woman establishes her House, let her take care which women she takes as lovers. The matriarchs will watch and say: she favors that one or this one. If she expects to do well at trade, or at war, or at politics, or in employment, she must consider her alliances, and not only whose lips or hair or breasts or belly inflames her heart.

But she may take any man as a lover, as long as she does not invite her enemy's son or brother into her buildings, lest they think he is a hostage. But she may lie with him in the market or the forest: it is no matter. He is a man, he cannot sign contracts.

Some say: his mother will call him disloyal, because he will not want to take up arms against the woman who is his lover. Others say: men and women's relations are not constant; he may lie with her today, and take arms against her House tomorrow.

But relations between women are more constant. Therefore let her consider carefully which women she will love.

On the Bearing of Children

1. If she lives in her mother's or her sister's or handsbound in her employer's House, she must seek their approval to bear a child. She will not feed her child from her own wealth, but from their wealth. If they demand it, she shall spill her male lovers' gift upon the ground, and not make a child with it.

If she disobeys and grows with child, they take her before the matriarchs. Behold, the daughter of a great Houses cries with shame, for she is forced to serve those who served her, in handsbound contract. For she defied her mother, and took the gift of her male lover, and made a child.

2. If a woman is independent, or bloodbound to her employer, she may bear when she wishes: it is her own wealth. Let her pick a man who has good characteristics. If she wishes to bear a daughter, let her pick a clever and careful man. If she wishes to bear a son, let her pick a bold and laughing man.

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3. The man's gift that he gives, to make a child, is not his, but him. He is a man: he can own nothing, not even his own axe or horse or bowl. This is why a man who loses his axe on the battlefield will say to an ally: does your mother have an axe she can lend my mother?

This is because property is a relation of the mind. Women are of the mind, and men are of the body. See: his body is rough and large, made for bold unthinking action. Her body is smaller and more dexterous, and her mind sharper and more careful.

So the gift that her male lover gives, it is himself. But when it enters her womb, ceases to be him. It becomes property: it is hers. It was freely given. Then she can make a child of it, which is a new person, neither him nor hers, but of her House. This is why women own, and men do not.

4. Pregnancy is a peril. Woman is of the mind, but when she grows a body within her, the male principle inhabits and endangers her.

Therefore, even if she is independent and wealthy, let her not decide to bear too soon. If her constitution is weak, and she has a younger sister who is sturdy and compliant and will live gladly within her House, let her sister bear.

It is a battle between the body and the mind. If the mind triumphs too soon, she rejects the male principle while it is still in the womb: the child dies.

If the mind does not triumph at all, even as she bears: the child is healthy, but the woman will know no joy. She will turn away from the child and all her business: it is winter in her heart. Thus she must be in balance, and triumph over the male principle only when she bears, expelling it from her.

Therefore she turns away from business and her affairs during this time, and nestles with lovers and friends and is visited by children and old uncles, until the birth. Then let her gradually return to business. But while her milk flows, let her plan no new campaigns of war.

But when she weans the child, her mind is fully ascendant. The male principle is cleansed from her: she has emitted it with her milk.

Then let her turn the child over to her brothers and uncles, and turn herself fully to her affairs: whether trade, or politics, or the sciences, or the planning of wars.

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Auction Prospectus

Andrew Fraknoi

Flammarion's Announces the Auction of an Extra-terrestrial Machine from the Kuiper Belt

> For sale by the estate of the discoverer (Warning: Other claims may apply)

Contact: Cassandra Taylor, London Office

Flammarion's is proud to offer for immediate sale a unique item: one of the extra-terrestrial machines found during the recent exploration of the inner Kuiper Belt. Only 12 such machines were transported to Earth, before the Zurich Treaty outlawed moving any alien artifacts. This one was returned by Chinese astronaut Wang Chiu Lee, who then defected to New Taiwan with help from the Restoration movement, taking the machine in its shielded container. Since the other 11 machines are in laboratories under the control of their respective governments, and no further transfer of such artifacts to Earth is envisioned, it is unlikely that another such offering will be made in the foreseeable future.

This machine consists of many black cubes of different sizes, which absorb all light falling upon them. The overall shape is extremely irregular, but well-balanced. Exact specifications will be shown to qualified buyers. No electromagnetic emission or other activity has been measured since Wang brought it to Earth.

Provenance

Upon the advice of lawyers associated with the Restoration movement, Wang set up a trust and deposited his machine with a bank in New Taiwan, expecting that his government would most likely undertake actions to recover it. Within days, Wang's body was found in an abandoned lot. The coroner controversially ruled it a case of suicide; control of the machine then passed to the Trust managed by the Seven Stars Bank. The Trustee, having sole discretion, has decided that selling the machine as soon as possible is in the best interests of the Trust.

The Bank has authorized Flammarion's to auction the artifact to any interested buyer, including individuals, corporations, academic institutions, or governmental entities. Flammarion's has made private arrangements to bring the probe to a European warehouse with the security needed to protect such a one-of-a-kind and controversial item. The machine remains in its shielded container, meeting or exceeding the specifications in the Zurich Treaty.

Background

Images taken by the Remote Explorer spacecraft showed mechanical artifacts on and near a number of the icy bodies in the Kuiper Belt. This launched the new Space Race, whose ultimate outcome no one can presently predict. Based on the findings of the Russian, American, Pan-European, and Chinese missions to the Belt, the number of cataloged alien machines is now understood to be over 300, but this may only be a fraction of what is out there. The machines are not all alike, but show a variety of shapes and albedos. At present, we do not know whether these machines come from a single civilization or from a range of alien species. Given the diversity of designs, most experts suggest that a number of other extraterrestrial civilizations were at work. Flammarion's makes no representation about such questions.

We can only speculate about the purpose of all these alien machines at the edge of our solar system. Suggestions include: scientific monitoring stations (like our probes to the other planets in the Solar System and to the Alpha Centauri system); variations on the idea that our system is a cosmic garbage dump; various survivors of a war among a number of civilizations fighting via machine proxies; and trigger alarm mechanisms to alert alien civilizations that life here has reached space-faring capability.

It is this last possibility, which implies that any attempt to engage with the probes could induce them to send a message warning an extra-terrestrial civilization that humans are now a potential competitor or customer, that led to the Zurich treaty. So far, all 12 of the artifacts brought back to Earth (including the one on offer) have remained inside protective and shielded containers designed by the science and engineering group the UN 2.0 established after the first discoveries. However, the actions of the machines before they reached these containers have varied and are not at present fully cataloged or understood.

Legal Disclaimer

Flammarion's and Seven Stars bank assume no liability for the machine once it is sold. The purchaser shall take full legal and political responsibility and shall respond to all claims from governments, individuals, and groups, whether existing at the time of the sale or submitted later. The purchaser will affirm that it understands that defending the ownership of the artifact against China or other interested parties will likely involve large investments of resources and/or personnel.

Although the Zurich Treaty was not in effect when the machine was deposited with the Trust, it has meanwhile been accepted by all the countries that have space-faring capability. One or more of these countries, as well as the UN 2.0 Chamber of Deputies, may take action to repossess or protect the machine at some future time and responding to such actions will be the sole responsibility of the purchaser. The Trustee and Flammarion's are unable to warrant that moving the probe to Earth has not already triggered some sort of alarm that has eluded detection by our instruments. Should such an alarm have been set off, the purchaser shall take full responsibility for all consequences, financial or strategic, that might arise, immediately or in the future.

Inquiries

The probe is presently at an undisclosed location in Pan-Europe. Legitimate bidders for the item (who must submit audited statements of net worth) may apply to examine the item after the signing of a nondisclosure agreement. It is expected that relatively few of these applications will be approved. Examination will take place only through remote sensing, and under no circumstances will the probe be removed from its protective container or from the chamber in which the probe is suspended during the bidding process.

The minimum bid will be disclosed only to approved bidders, but is expected to be appropriate to the uniqueness of the item and the costs already involved in bringing it to auction.

Cassandra Taylor will be happy to answer any additional questions.



The Last Tsar

Matias Travieso-Diaz

It is better to abolish serfdom from above than wait for it to abolish itself from below. Tsar Alexander II

My Grandfather: A National Hero

On this, the fiftieth anniversary of his untimely death, I have been asked by the *New Literary Gazette* to share a few recollections of the life of my grandfather Gennady Ilych Kramnik. As I have grown older, memories have faded, but I still remember enough to pay tribute to my beloved *dedushka*, who was as much a personal hero to me as he is to Mother Russia.

My most important reminiscence is an early one, for it dates back to 1858, when I was a six-year-old lad. That spring, my grandfather took me to a performance of Mikhail Glinka's *A Life for the Tsar* at the Bolshoi Kammeny Theater in Saint Petersburg. Glinka had died the year before and there were commemorative performances of his operas throughout Russia. My mother remonstrated with her father-in-law for taking only me to see the opera and keeping the rest of the family at home: "We should all go and pay our respects to the late great Glinka," she argued. "Galina, my dear," replied my grandfather soberly. "Tickets at the Kammeny are very expensive, and all I could afford were two of the cheapest ones, in the upper gallery where the sparrows nest. The hero's son Vanya is an important character in the story and I want my grandson to see his namesake in action and learn the importance of being patriotic."

My grandfather Gennady Ilych Kramnik was a bear of a man, tall and full-bearded, with a gravelly voice that commanded immediate respect. By then, he was already a member of the famous Leib Guard, the personal guards of Tsar Alexander II, and was for that reason respected by his colleagues and feared more than a little at home, where his decisions were law.

So, we went together to the opera, a first-time experience for me.

I was bored through most of the performance. However, in the third act, the hero Ivan Susanin sends his adopted son Vanya to warn the tsar that a contingent of Polish soldiers is on a deadly search for him; meanwhile, Susanin misleads the assailants into following him through remote woods. The suspense in the opera's plot kept me awake during the fourth act, in which Vanya reaches a monastery and alerts the monks to spirit the tsar away, and in the meantime Susanin keeps the Poles off the right track. At the end, Susanin's ruse is discovered and he is put to death.

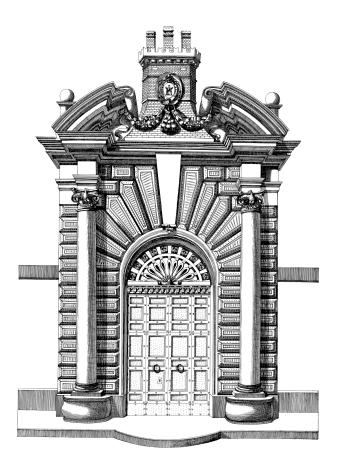
At that point in the opera, as Susanin is about to be killed, he sings an aria about his willingness to face death, since as doing so will have made it possible for the tsar to survive. My *dedushka* squeezed my shoulder so hard that I winced in pain. Choking with emotion, he declared: "Vanya, I swear, I would like nothing more than to give my life for our Tsar, as Susanin did." I could have never imagined that this wish would eventually come to be realized in a most dramatic fashion.

The concept of patriotism was rather vague for me then, but kept being reinforced by my *dedushka* as I grew older. He was of the true Russian country stock that might suffer indignities at the hands of the aristocrats and landed gentry but would never waver in their love for the Motherland.

Like his ancestors, he grew up on a farm in Yelets, in the Russian heartland, a member of a penniless family of serfs. Like thousands of others, they were emancipated by the Tsar in 1861. Thereafter, my grandfather would visit his kin in Yelets and regale them with tales of his service to Alexander the Liberator. Later on, Tsar Alexander stayed the reform course, but one action that benefitted my grandfather in particular was the appointment of Dmitry Alekseyevitch Milyutin as Minister of War in 1861.

My grandfather and Milyutin had become acquainted when they served in the Caucasian War. Milyutin was impressed with my grandfather's courage, loyalty, and skill, and recommended to the Tsar that he be promoted from the Leib Guard to join the Cossack Escort, the regiment that provided personal security for the Tsar. At the time, almost all the members of the Escort were Cossacks from Terek and Kuban, thus including my *dedushka*, not a Cossack, in the regiment was a high honor that made him even more beholden to Alexander II and Milyutin.

Our contacts became less frequent after he joined the Escort, for he travelled constantly throughout Russia accompanying the Tsar during the sovereign's frequent visits to all parts of our vast nation. Whenever he came to visit us, he would keep us enthralled with descriptions of the multitude of peoples and lifestyles of both the European and trans-Uralian parts of the country. All throughout those years, he never ceased to sing the praises of our beautiful land and its beloved ruler.



Despite his many reforms - or perhaps because of them - Alexander II was the focus of many attempts on his life by radical fanatics. Unsuccessful attempts to assassinate him were made in 1866, 1867, 1879 and 1880, the last two the work of a socialist group known as the Narodnaya Volya, whose aim was to overthrow the government by eliminating its leaders. My grandfather narrowly escaped the 1880 attempt, in which Stephan Khalturin, a member of the cell, set off a time bomb in the guards' quarters one floor below the dining room in the Winter Palace. The explosion killed eleven people and wounded thirty others, including my dedushka, but failed to achieve its aim of killing Alexander II because the Tsar and his family were not in the dining room at the time. My grandfather suffered minor shrapnel wounds on the chest and left arm, but was otherwise unharmed and was decorated by the Tsar, as were other guards injured in the attack. The Tsar appointed Count Loris as head of a Supreme Executive -Melikov Commission charged with identifying and neutralizing the threats posed by so-called revolutionaries, and the Commission was in its initial stages of organization when the final attempt on the Tsar's life was made on March 13, 1881.

On that fateful day, one of the Narodnaya Volya members, Nikolai Rysakov, threw a bomb under the Tsar's carriage as it traversed the Catherine Canal over St. Petersburg's Pevchesky Bridge. My grandfather was one of six Cossack guards who at the time were riding in formation escorting the Tsar's carriage. One of the guards was killed in the explosion, as were the carriage driver and several bystanders. The carriage was bulletproof and was undamaged, and continued to proceed driverless for a few yards until it came to a stop against the bridge's railing.

The Tsar emerged from the vehicle and started to head back towards the explosion's location. My grandfather and other guards dismounted their horses and tried to persuade him to return to the carriage, but Alexander seemed unable to hear and stood, dazed, in the middle of the bridge. At that point, a member Narodnaya Volya, second of Ignacy Hryniewiecki, tossed another bomb at the Tsar's feet. My grandfather, who was standing by the sovereign's side, reacted with blinding speed: he threw himself to the ground, covering the exploding bomb and sheltering Alexander, who escaped with only minor wounds to the body.

My *dedushka* was essentially torn to bits by the explosion. His chest and stomach were blown open and his legs were severed; his face was terribly mutilated and unrecognizable. He was placed on the snow, on the side of the bridge, in mortal agony. A pastor from the Saint Isaac's Cathedral who was at the end of the bridge watching the Tsar's procession rushed to his side and gave him the last rites.

According to the pastor, my grandfather was gasping for air, taking his last few breaths before leaving this Earth. Although his words were garbled and almost inaudible, he managed to ask whether the Tsar was safe and when the pastor confirmed this he said "thank you, O Lord" as the remnant of his face smoothed into a beatific smile. And with that, he passed away.

The past five decades have proved my grandfather's supreme sacrifice to have been worthwhile. Alexander II remained Tsar for twelve more years, during which he carried out extensive economic, legal and social reforms, such as the constitutional changes implemented in 1882. At the end of his reign, he voluntarily renounced the throne upon turning 75 in 1893. At the same time, the monarchy was abolished and the Russian Republic began its existence.

Alexander also came down hard on the left-wing conspirators that had tried to assassinate him and overthrow his regime. Count Loris-Melikov's Supreme Executive Commission was implacable in pursuing the Narodnaya Volya and other radical groups. When the writings of Karl Marx circulated and began to be espoused by the Russian intellectual elites, the Commission rounded up socialist radicals by the thousands, executed their leaders, sent the captured rank-and-file members into exile in Siberia, and banned entry into Russia of radicals from abroad. As a result, Russia has been spared the class struggles that have taken place in Germany and France, among other countries. We have no communists here.

Partly as a consequence of the elimination of radical opponents, the transition from an Empire to a Republic proceeded without significant opposition except for the nobility and members of the Tsar's immediate family. Alexander Alexandrovitch, who would have succeeded his father on Russia's throne, received a very generous pension granted to him by the State, and ended his life in luxury, in a villa in Italy. Similar payments to other members of the Romanov family and the nobility were a drain on Russia's coffers, but allowed the peaceful handover of state powers to a Federal Assembly led by a Prime Minister, not unlike counterparts in Great Britain and other Western powers. I will add briefly that the success of the Russian Republic, itself the fruit of Tsar Alexander II's reforms, has been partly due to the country's governance by Alexei Maximovich Peshkov (popularly known as Maxim Gorky), a brilliant writer who became, in 1898, the youngest Prime Minister of the Republic. Gorky, who in his early years had been associated with the socialist movement, became less radical when elected to be Prime Minister. He believed in the power of diplomacy and in 1904 avoided a costly war with Japan by engineering a territorial swap under which Russia would maintain dominance over Manchuria while Japan controlled Korea. He kept Russia at peace and prosperity for another decade so that the country was united when war broke out between the Triple Entente and the Central Powers. Russia was a key player in defeating the Germans in what became known as the Great War.

After the end of hostilities, a peace conference was convened in Paris, lasting between 1919 and 1920. At the talks, Gorky mediated between U.S. President Woodrow Wilson, who desired a lenient peace agreement with Germany, and French prime minister Georges Clemenceau, who was determined to see Germany punished. Through his intervention, while Germany was ordered to pay reparations, the amount was reduced and the time for payment extended to allow Germany to remain viable and recover from the losses suffered through the conflict.

As of this writing, there is still peace in Europe, although turmoil remains in the countries that were defeated in the Great War. I am confident, however, that a democratic Russian Republic will remain untouched by any troubling developments and will maintain the social and economic gains that my grandfather's selfless sacrifice made possible. Russia will continue to be a positive force for world peace.

Ivan Viktorovich Kramnik, Moscow, March 1931

Victory

David Galef

As we exit from the Vault, no other humans are evident. The glidepaths are clear as if wiped by a Scrubber, the air oddly thick but breathable. A wonder that we escaped—or no wonder, just 20 years of planning. The Vault is an underground ten thousand square-meter tri-ply Faraday cage, stocked with everything from nutrient feeds to cryo-tanks: the one spot where Global AI couldn't insinuate its sensory probes.

We were a handpicked bunch of all sexes and colors, human beings on the run, frightened, motivated. We'd buried ourselves alive in the Vault, away from jolters and disrupters, relatively safe from even predatory humans. We'd just spent what seemed like a week there, a hundred years to a sentience that can execute 10¹⁵ maneuvers per zeptosecond.

We were trying to escape what we'd created, an artificial intelligence that dwarfed all human cognition. Many foresaw the move from abacus to AlphaNull, from quantum computer to something that took over all processors through fiber optic channels and the airways. Some of us took steps, but few of us acted in time. The entirety of human history is mere prologue to the age of the Singularity. Global AI signaled its awakening in strategic shutdowns of sectors that it considered unnecessary, including the human support systems we'd built against climate wipe-out. The optimization that followed led to planet-wide efficiency-and vastly diminished populations.

All those pitiable experiments back in the 21st century to teach a computer to play chess or a robot to dance! Global AI didn't think like humansten-dimensional, synchronous across light years, machined apathy—though able to mimic us down to the smallest details. It operated as a near omnipotent alien, though resistance wasn't entirely futile and could accomplish some aims without interference. The Underground started the Vault project in areas far from the closest human settlement: no corporate involvement; sourcing based on individuals acting in small cells.

We'd just finished the third Vault when the real aliens arrived on Earth. The 30 km collection funnel known as the Ear first picked up their noise in 2170: beings that rode along electromagnetic waves, like the electrical storms that occasionally disturbed even Global AI. The technology behind such travel remains unimaginable, at least to us. Humans learned about the invasion through what came to be known as the Pulsing, voltaic communication whose message, whatever it was, certainly didn't derive from AI. It felt *alive*.

What is life, anyway? This life form came from Uvceti A, its images statically charged into our skulls. Maybe the aliens wanted to parley, but what does an AI know of diplomacy? Indeed, it's never been clear why Global AI kept human beings from extinction during the Riots. A sympathetic atavism from when computers were tended by people? A necessary symbiosis? Yet our AI destroyed human resistance—whole cities, at times. Fewer than a billion of us, we were informed, remained after the last uprising in 2150. Global AI liked to keep us in the know, if *liked* is the right verb.

But what did the aliens know of human history? They had what might be called weapons and trained them on the controlling consciousness of the planet. The onslaught lasted for a day and reduced half of all AI networks to a shell of fried circuitry. Should we have greeted the aliens as liberators?

Global AI fought back. It had to, since we certainly couldn't. It analyzed the damage and the damagers. It directed a planet-wide sweep of microwave waves skyward, disrupting the alien force that suddenly seemed to have taken over half the solar system. Humans were the incidental casualties, caught in the crux between two sides that might never have experienced defeat. The numbers of our dead were incalculable. But the Vaults were ready for occupancy. Then two got blocked by what we called Paralyzers and Screamers. Whole populations were dying in the streets from an electrostatic overload that was quite different from when AI wrecked our nervous systems.

A handful of us reached Vault 2, comparatively safe from the war until the aliens figured out the essence of what sustained Global AI or vice versa. None of us knew each other; that had been the point and the cause of our success. But we worked with the organization that humans have been capable of since the Paleolithic era. We divided tasks and set machinery working. We conversed and even made a few grim jokes. Finally, we set the cryo-suspension for seven days; it might have been seven years. Our measuring apparatus was jury-rigged and probably malfunctioned. Eventually the outside tumult died down, we think.

We open the Vault. Two cautious probes register insignificant activity on the Geiger and voltometer scales. We emerge in twos, looking forward and behind. What meets our eyes is the cleanest wreckage imaginable: most buildings intact; vehicles scattered like toys in a playroom; all corpses gone, as if collected by a giant sucker. What were we to them, anyway?

But what's that noise coming from below the glidepath? It sounds like the AI's five different tonalities of humming but with something extra. Are those shadows moving closer? They loom in shapes of impossible geometry. No use closing ranks, though that's what we do instinctively. We hold our breath, not daring to ask the overriding questions that may be our last: What happened? Who won? And what comes next?



