The Eye of Gazul: A Mountain-Scale Burning Shadows Emplacement With Dwarven Runic Augmentation

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Abstract—We report on our development of a new weapon known as the Eye of Gazul, which destroys the souls of armies attempting to assault the Karak Eight Peaks region by channeling Zharrvengryn through a spell of Burning Shadows applied to the shadow of Karag Nar, a local mountain. The Eye of Gazul can be fired at any time, in any weather, and at any target in line of sight by components which control the weather and move the sun. Any authorized individual can operate the weapon using a runic control system and storage apparatuses for the necessary Winds. We additionally report on the successful deployment of the Eye of Gazul to break Waaagh Birdmuncha with fewer than 500 casualties. The Eye of Gazul is, to the author's knowledge, one of the world's most powerful operational defensive systems. Index Terms—Burning Shadows, Dwarven Runes, Gazul, Siege

I. INTRODUCTION

King Belegar Ironhammer's Expedition to Karak Eight Peaks retook Karag Lhune, Karag Nar, and the Citadel in 2479. Impending threats from nearby orcs, trolls, and beastmen indicated immediate fortification. Several approaches to the Expedition's holdings are too open to be easily defensible, notably the slopes of Karag Lhune and the Caldera. During the Expedition's initial push these open approaches were held using artillery, Anvils of Doom [9], and infantry. This was unsustainably expensive and the siege-scale resources, particularly the Anvils, could not be guaranteed to be present in the future. A more permanent large-scale defense was needed

We detail the design, capabilities, construction, and initial combat deployment of a unique weapon system which satisfies Karak Eight Peaks' need for permanent large-scale defenses. A cluster of towers atop Karag Nar binds a spell of Burning Shadows which is projected through the shadow of the mountain. A Rune of Gazul allows targets that fall within the shadow to be burned from the inside out by the antifires of *Zharrvengryn*, which is Dwarven Hell, the Sword of the Dwarven Ancestor-God Gazul, and the soul-burning fire that Gazul uses to judge the enemies of the *Dawi* [3]. A cluster of other towers clear the weather, place a light so the system can be fired at night, and move the image of the sun so the shadow of Karag Nar can be placed anywhere within the Karak Eight Peaks region at any time in any weather. In 2482 the Expedition's holdings fell under attack by Waaagh

Birdmuncha, numbering approximately 1.2 million greenskins. The system was deployed by Magister Dame Mathilde Weber, instantly destroying almost half of the Waaagh. The remainder of the Waaagh was strung out through a mountain pass where it could be easily attrited or pinned down where it was mopped up by an Anvil of Doom exploiting lingering unreality from the weapon's firing.

II. RELATED WORK AND BACKGROUND

A. Burning Shadows

Burning Shadows melts flesh like acid by disappearing it into the depths of the shadow that is used as the spell's focus [15]. Occasionally referred to as "Baby's First Battle Magic", its exacting requirements give it a reputation for being tantalizing powerful in the right situation and dangerously useless in every other. If every single one of a dozen conditions

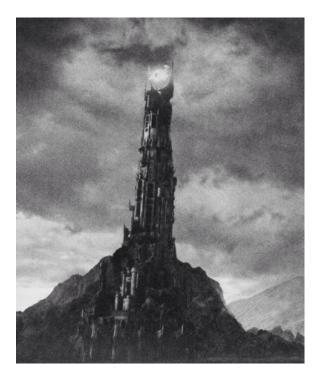


Fig. 1. An illustration of the Eye of Gazul.

is met, a brand-new journeyman can instantly break a charge or obliterate an enemy formation. If even one of those conditions is absent, an enemy too far or too close or too many lights or not enough lights, the spell does nothing. Many wizards have lost their lives while attempting to arrange the perfect shot [4], [15].

Scaling Burning Shadows up for battlefield use has been a topic of research since the spell was invented [2], [4]. These attempts suffer from the same limitations as the original spell and have a similar success rate. Recorded downfalls include: A Magister killed when beastmen attacked their tower at night [8], a Lord Magister killed when the forces of chaos attacked their tower on an unseasonably cloudy day [8], and a Journeyman killed when a greenskin shaman doused the bonfire they were using to direct their wagon's shadow [13].

B. Gazul

Gazul, Lord of Underearth, is one of the Dwarven Ancestor Gods and the Dwarven protector of the dead. He is additionally credited with the discovery of the signature Runes for himself as well as his siblings Grungni and Valaya. Gazul's signature weapon is the runesword *Zharrvengryn*, "Flaming Vengeance" [3]. Little more is known about Gazul as many details of his worship are considered religious secrets [11].

C. Dwarven Runes

Dwarven runecraft uses precise inscriptions in rock and metal to capture the *Sevir* and bind them into useful, predictable conformations. Each rune has a unique and well-defined effect, such as making a belt's wearer immune to fire or strengthening the blows of a hammer. Complex rituals, methods of construction, and material requirements are the norm, making runecraft exponentially more difficult in the number of runes involved in a project [12].

III. CONSTRUCTION

The Eye of Gazul is a cluster of heavily-enchanted and runed towers built atop and into Karag Nar. The Grey Tower contains the system's core components and the control room. The Red Tower contains the *Aqshy*-based night-firing system. The Blue Tower contains the *Azyr*-based weather-clearing system. Finally, the Rune of Gazul is buried at the base of Karag Nar. See Fig. 2.

A. Grey Tower

The Grey Tower contains the system's core components, including the Bound Spell of Burning Shadows. We follow Algard [2], [20] for the majority of the construction. The walls and foundation are of a common granite from the surrounding area chosen for stability, lack of existing attunement to the winds of magic, and a conceptual link to Karag Nar. Steel beams tie the tower into the bedrock of Karag Nar to make the tower conceptually part of the mountain. Refer to [2] for further details. To further guarantee the beams do not interfere with the power they transmit, Dwarven Runesmiths were employed to reject all winds but *Ulgu* while the steel

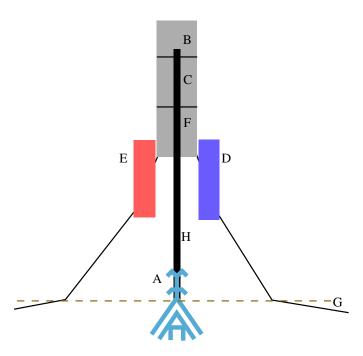


Fig. 2. Functional Diagram of the Eye of Gazul. Not to scale. A: Rune of Gazul. B: Control Room and major functionality. C: Room of Dawn and Dusk. D: Blue Tower. E: Red Tower. F: Living Space. G: Conceptual line between Karag Nar and Ground. H: Rune connector beam.

was being smelted. Extensive runic inscription on the beams and in the tower's internal spaces ensures stability and permit manual operation.

B. Chamber of Dawn and Dusk

An enchantment draws morning mist to the tower, bringing *Ulgu* with it. This *Ulgu* is absorbed by a partially-completed powerstone which only attracts *Ulgu*. Note that, to avoid contamination and ease construction, the mist-drawing enchantment is *not* a standard weather-control spell using *Azyr*, instead being purely of *Ulgu*, see [1], [10]. The powerstone, combined with a pattern of interlocking shadows [4] and *Ulgu*-attuned wood from Araby [7], provide an *Ulgu*-friendly environment in which the wind accumulates. *Ulgu* is channeled to the Eye of Gazul through beams made of more *Ulgu*-attuned wood. As a side benefit, the Chamber provides a reservoir of high-purity *Ulgu* that can be drawn on for research purposes.

C. Red Tower

The Red Tower uses *Aqshy* to cast a bright light so the Eye can be operated at night. *Aqshy* is produced by mundane fires and drawn into a chimney built into the tower, where it's captured through a series of beams from the *Aqshy*-friendly wood of the local black pine [6]. A slab of black volcanic glass is used to store the captured *Aqshy*. The spell uses the outer framework of Breathe Fire to maximize power delivery to a cluster of "light cores" each similar to a scaled-up and augmented spell of Marsh Lights [14], [18]. These light cores are prevented from interfering with each other by adapting techniques from Fiery Blast [17].

D. Blue Tower

The Blue Tower is the focus for a standard Bound Spell of Clear Sky [16]. The *Azyr* for the spell is provided by simple accumulation at the tower's altitude or a lightning rod mounted at the top of the tower [5]. Care was taken to make the spell of Clear Sky efficient and clean because it employed significant amount of *Azyr* in very close proximity to the *Ulgu* used to cast Burning Shadows.

E. Rune of Gazul

A Rune of Gazul is buried directly underneath the center of the Grey Tower, plus or minus six ten-thousandths of an inch, at a depth placing it at the conceptual boundary between Karag Nar and the rest of the world. The Rune of Gazul is approximately two meters across and formed of pure diamond, which as a product of the depths of the earth is conceptually related to Gazul's realm. Further details of the Rune's construction will be elided.

The rune is connected to the tower and made part of it using a perfectly vertical steel beam. The visible parts of the beam glow with a faint blue light in indoor lighting. Some witnesses describe the pillar as "unearthly" or otherwise unsettling, but no movements of *Sevir* have been observed in or around the beam so it is unlikely that this response is other than simple fear of magic.

F. Control Room

A Grey Wizard can operate the Eye of Gazul from a revolving chair in the center of the control room. In this mode, the operator provides the Ulgu for the spell directly and the Eye can fire as long as the operator's focus holds.

The Eye of Gazul can be manually operated in the absence of a Grey Wizard. Levers activate and deactivate the Blue and Red towers as well as the sun-placement component of the Grey Tower. A control panel can be moved around the room on a track to control the shadow's azimuth. A dial sets the altitude, which can be determined using a precomputed table of landmarks. Switches lock the dials to ensure the targeting parameters aren't changed once configured. A set of targeting crystals each contain a magical signature for an enemy to be targeted. Existing crystals include greenskins, ogres, several varieties of beastman, undead, and four varieties of daemon. Additional signatures can be added by any wizard with a basic knowledge of enchantment and decent Magesight. Finally, a button triggers the firing sequence.

Detailed instructions for operating the Eye of Gazul are available to authorized users in the armory of Karak Eight Peaks and the archives of the Grey College. Refer to [19].

IV. CAPABILITIES

A. Effect on the Target

Targets affected by the Eye of Gazul are killed instantly, leaving behind fragile, hollow statues of pure carbon. These statues disintegrate into ash at even a light touch or in a stiff breeze. Clothes and equipment are untouched. No flesh is left behind, even flesh hidden under clothes and armor. No smell

is present. Magesight shows no energies in the statues, either lingering from the activation of the Tower or showing any hint that the statues were once living creatures. This is consistent with the effects of *Zharrvengryn*, which "ignites the energies that bind body to soul" [11].

B. Range

Karak Eight Peaks is at roughly sixty percent north by the Praag-Norden wasteline, or about forty by the theoretical Northern Chaotic Pole. On Sonnstill, the shadow of Karag Nar runs exactly east to west, covering the entire Eastern Path, the easternmost 20% Death Pass, and the entire Caldera and the Eastern Valley. On Mondstille, the shadow covers 80% of Death Pass but misses the entirety of the Caldera and the Eastern Path. See Fig. 3a.

The Eye of Gazul can also cast a spell of illusion to cause the sky to forget where the sun is and swap it with another part of the sky. This can be coordinated with the activation of Burning Shadows to cast Karag Nar's shadow at an arbitrary angle. The *Ulgu* necessary to affect the sky itself, rather than the people under it, is provided by a series of *Ulgu* powerstones placed throughout the Grey Tower.

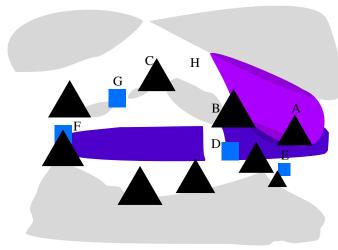
When controlled, the Eye of Gazul's engagement range covers the entirety of the Caldera, the Eastern Path and Eastern Gate, the door of the Western Gate, Death Pass, and the Eastern Valley. The only entrances to Karak Eight Peaks that cannot be targeted are Death's Crossing and some exterior mountain slopes. The immediate approach from the Caldera to the Citadel is shadowed by a southern ridge on Karag Lhune, but enemies can be engaged as the cross the caldera before they reach this area. See Fig. 3b.

C. Power

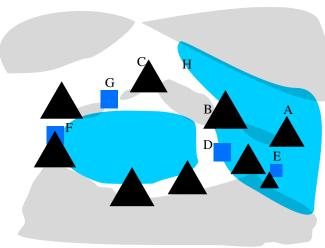
When operated by a Grey Wizard, the Eye's operation is limited only by the user's ability to remain focused. When the system is operated manually, power is provided by the Room of Dawn and Dusk. Enough *Ulgu* is stored for between three and five hours of continuous operation. Filling the Chamber of Dawn and Dusk from empty requires approximately three weeks

The Red Tower stores enough *Aqshy* for approximately three dozen nighttime shots. Cooking and heating fires in the inhabited portions of Karag Nar are funneled to it as a passive source of *Aqshy*. It takes approximately a week to fill the Red Tower's store of *Aqshy* from empty. If more operation is required, the Red Tower is fireproof and may be powered by a bonfire set in its central chamber.

The Blue Tower stores enough *Azyr* to clear the weather for between two and twelve hours depending on the severity of the weather. It takes approximately a month to fill the storage from empty. In more severe weather the tower attracts lightning, which carries with it enough *Azyr* to operate the Eye for several minutes per strike. Weather that is severe enough to be difficult to clear is significantly more likely to supply *Azyr* to the Blue Tower [5].



(a) Reach of Natural Shadows



(b) Reach of Controlled Shadows

Fig. 3. Maps of Karak Eight Peaks showing the reach of the shadow of Karag Nar under various conditions. Dark Purple : Daily extent of natural shadow at Mondstille. Pink : Daily extent of natural shadow at Sonnstill. Blue : Area targetable when controlled. Grey : Easily-defended mountains. A. Karag Nar. B. Karag Lhune. C. Karagril. D. The Citadel. E. East Gate. F. West Gate. G. Death's Crossing. H. Death Pass.

D. Defenses

Runes throughout the three towers ensure that only properly authorized users can operate or modify the tower. Armored plates over the windows protect the operator and can be opened when firing by eye. The tower's more sensitive components are protected by thick walls, extensive runecraft, and the power of the Rune of Gazul. In manual mode, the Eye of Gazul requires a targeting crystal; targeting crystals are only available with the signatures of enemies of the Empire and the Karaz Ankor. Further details of the tower's defenses will not be made publicly available, though authorized users may consult the Manual of Operation [19].

E. Aftereffects

The Eye of Gazul is sufficiently powerful that large activations can disturb reality for hours afterward. No effects

were apparent when tested on six captured greenskins. When deployed against a Waaagh to kill over 500,000 greenskins, however, significant unreality lingered for nearly three hours throughout the entire Karak Eight Peaks region. Observed effects included:

- Fluidized soil (by the use of runecraft to forcibly induct air) could be boiled as if it was water by nonphenomenological introduction of heat.
- Mages with sensitive Magesight could see, smell, taste, feel, and taste the energies used in the activation of the Eye. Descriptions of the phenomenon described it as "reality twanging", "membrane between reality and the domain of souls and gods rippling" and "aftershocks".
- A greenskin Warboss retreated from an impending fight in good order.

F. A Note on Target Selection

It is commonly believed that Burning Shadows draws information from the caster's mind to differentiate between target and non-target [15]. The authors observed otherwise when firing the Eye of Gazul under Wizard control:

For an instant that stretched into what felt like hours, I glimpsed one greenskin after another for a fraction of a second each and mentally confirmed that, yes, it was an enemy of the *Dawi*. Apart from some having been Orcs and some Snotlings, the only variation was the scarce handful of vultures mixed among them, following hopefully in the Waaagh's wake and likely destined to be very disappointed. And throughout the entire process I could feel the energy of the Waaagh like an unpleasant vibration in my teeth

It is possible that the divergence is due to the presence of the Rune of Gazul. Confirming targets as enemies of the *Dawi*, rather than as enemies of the operator or simply targets versus non-targets, is particularly suggestive of this possibility.

V. FUTURE WORK

The Eye of Gazul has so far only been tested against greenskins. Future work will report on its effectiveness against other attackers and on extensions of the targeting array. Of particular interest is the possibility of adding targeting parameters for destroying particular portions of an enemy force (e.g. assassinating Bosses or Shamans), servants of Chaos less significantly mutated than full daemons, and invasive greenskin flora. The authors are also interested in peacetime uses of the system. For example, a targeting crystal attuned to Sosnowsky's Hogweed, which causes severe burns and photosensitivity on skin contact, could make weeding and brush-clearing less dangerous in the surrounding region.

VI. DISCUSSION AND CONCLUSION

We demonstrate a practical method to address the limitations of Burning Shadows as a battlefield-scale spell. Excepting the Rune of Gazul, the core capabilities could likely be duplicated by a handful of Magisters in a timeframe measured in years rather than decades and on a budget that is large but not impossible. We also show that dwarven runecraft integrates with collegiate enchantment relatively easily and with spectacular effect, as each discipline is able to cover the weak points of the other. Finally, we demonstrate a transformative improvement in the security of the Karak Eight Peaks region.

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