**Alma Mahler-Werfel, *Licht in der Nacht***

**Kenneth M. smith**

Alma Mahler-Werfel was a serious proto-expressionist composer. Although onl­y fourteen songs for voice and piano survive (1901–1911), these are Lieder in the intricate tradition of Brahms, Zemlinsky, Schoenberg and Berg, and a far cry from the ‘Salon’ where songs from female composers were all too often confined.[[1]](#endnote-1) Diane Follet rightly claims that these songs ‘verge on the melodramatic’ (Follet 2004, 28), and this melodrama is probably energized by bold harmonic experiments that spring from a branch of post-Wagnerian richness that could have developed alongside those of the *fin de siècle* avant-garde, but which was cut before it could bear full fruit. Sarah Click confirms that the music’s most novel characteristic is it ‘surging harmony’:

Her works still make reference to tonal centers, but these are clouded by extreme chromaticism. Functional harmonic relationships are obscured by half-diminished, fully-diminished, and augmented sonorities. The rapid harmonic rhythm adds to the overall intensity; because one rarely hears an isolated major or minor sonority in her music, such instances become expressive devices and are often found in climaxes or are used to point up specific words (Click 1993, 26).

Hers is a brand of chromaticism made possible by Wagner, who Mahler upheld as ‘the greatest genius of all time’ (cited in Susan Keegan 1991, 56); Click claims, ‘His [Wagner’s] presence permeates the very fabric of her writing’ (Click 1993, 29). Scholars are keen to emphasise the contrast between Alma’s work and that of her more celebrated husband Gustav[[2]](#endnote-2) although the fact that Gustav famously put the kibosh on Alma’s attempts to compose early in their courtship makes the lack of influence scarcely surprising. Her composition teacher Zemlinsky was far more profound an influence, yet she also has elements in common with the harmonically radical Schoenberg and Berg.[[3]](#endnote-3) Warren Storey Smith describes a ‘pronounced trend towards atonality’ in her work (Smith 1950, 74), while Follet notes that ‘major and minor chords are rare, […] diminished and augmented sonorities prevail, often with atypical spellings’ (Follet 2004, 31). An analysis of such a song, *Licht in der Nacht*, will demonstrate these and several other strikingly original aspects. Foremost in my mind is the technique of integrating octatonic cycles within diatonic cycles of fifths, sometimes involving hexatonic progression. As developed in neo-Riemannian theory, hexatonic scales are produced by the interchange of ic4 cycles (i.e., major third-related triads), while octatonic scales are a product of ic3 cycles (i.e., minor third-related triads). Hexatonics are rarer in Mahler because hexatonic music tends to be more triadic; octatonics are more common because of her strong predilection for tetrachords – *Tristan* chords, seventh chords, and diminished seventh-type sonorities. The interaction of different spaces is relatively common place in *fin de siècle* harmony, but Mahler’s distinct characteristic is the parsimonious voice-leading created between octatonically blended tetrachords (where such parsimony more frequently occupies neo-Riemannian theorists with hexatonic triadic composition). Mahler’s chromatic momentum drives us through different spaces into new chromatic chord progressions, creating impressions of syntactical resolution along a thinly-veiled diatonic thread while retaining sometimes more pitches than she ‘discharges’. Three analytical tools are used in combination to examine Mahler’s original harmonic progressions: the ‘voice-leading zones’ of Richard Cohn (2012) are used in tandem with Adrian Childs’ (1998) transformational model of parsimonious tetrachord voice-leading, while Mahler’s diatonic thrust is plotted along a space derived from Gottfried Weber that was appropriated by Fred Lerdahl (2001, 43) and later adapted by myself (Smith, 2011). The song chosen for analysis foregrounds the spaces navigated in relation to common poetic dialogues on the themes of light and darkness, and our analyses must be sensitive to this affective dimension. We therefore focus on a single song, *Licht in der Nacht*, the first of her *Vier Lieder* from 1901. However, the articulations of light and darkness in the song express tropes that emerge through intra-Lieder listening, and we must therefore survey the foundations in several other songs in order to retrain our analytical lenses more keenly on our primary object of study, rendered in full as Example 1.

After surveying two angles – Mahler’s diatonic energy and her controlled voice-leading parsimony – we present a more holistic picture of *Licht in der Nacht*, to show that she constructs her harmonic progressions into a coherent form through a technique I call *cybernetics*, by which she harmonically pushes us through feedback loops, forcing the same progression into different moulds until it finds its optimum form.

## **Light and Diatonic Clarity**

|  |  |
| --- | --- |
| Ringsum dunkle Nacht, hüllt in Schwarz mich ein, zage flimmert gelb fern her ein Stern!  Ist mir wie ein Trost, eine Stimme still,  die dein Herz aufruft, das verzagen will.  Kleines gelbes Licht, bist mir wie der Stern  überm Hause einst Jesu Christ, des Herrn  und da löscht es aus. Und die Nacht wird schwer!  Schlafe Herz. Schlafe Herz. Du hörst keine Stimme mehr. | *Dark night around, enveloping me in black,*  *Timorously a distant yellow flicker from a star!*  *It is to me as a comfort, a quiet voice.*  *That calls on your heart, that would give up.*  *Little yellow light, you are to me like the star Once over the house of Jesus Christ, the Lord,*  *And there it goes out. And the night becomes heavy! Sleep heart. Sleep heart. You no longer hear any voice.* |

On its own, the opening melody of *Licht in der Nacht* holds clear harmonic implications (see Ex. 2), but these are thwarted by the given harmonic accompaniment. From the pitch *d* unfurls an arpeggiated *Anstieg* that passes through its tritone counterpole *a<flat>*, signalling a B<flat> root, articulated as either V7 in E<flat> or a German-sixth in D. Abstracted from the actual accompaniment, this melody would then unfold E<flat> and A<flat>, pushing along the circle of fifths, relegating any German-sixth hearing. This melody is a clear *Auskomponierung* of the disturbing harmonic tension of the subversive accompaniment (see Ex. 1) that adds *b*<flat> pitches to the D minor chord and presents the *a*<flat> rather as *g*<sharp> – the spelling that would indicate <flat>VI<sharp>6. The melodic tritone suggests B<flat>7 at the very point when the harmony makes a bid to escape its repetitious cycle into new realms in mm. 7 and 10. The former *g*<sharp> led to the expectation that A7 might have followed, while the B<flat> represents the light that starts to glimmer through the enveloping darkness of the low, murky accompaniment. However, the would-be E<flat> melodic unfolding in Ex. 2 in reality supports a deceptive C minor (E<flat>’s ‘secondary triad’), and the final *a*<flat> peeks out (m. 10) from the dragging chromatic descent with *b*<flat> pedal that weighs us down. Thus, while ostensibly shaping her melodies with clearly diatonic potential, Mahler’s chromatic harmonic actualisation reigns-in any hope of diatonic fulfilment. Light may try and emerge through the darkness in the song, but the darkness always wins.

[INSERT Ex. 1 NEARBY]

The diatonic transparency that develops in *Licht in der Nacht* arises from the deep chromatic despondency of the introductory D/B<flat> complexes. When light enters the poem the Dø7 adjusts two bass semitones (*c*→*b*<flat>) to produce B<flat>7 proper in m. 7. Despite its lurking presence in the opening, it is only now heard in full. To graphically conceptualise some of Mahler’s progressions, I will be referring to the ‘space’ that Fred Lerdahl (2001) models on Gottfried Weber, referred to here as ‘Weber space’.[[4]](#endnote-4) Potential chords (indicated by letter names in Fig. 1) are arranged both horizontally and vertically. Working up/down the *y*-axis chords are ic3 related and have certain relational properties: (1) they can often be functionally substituted for each other; (2) they can mix together into an octatonic collection; (3) no ‘seventh chord’ can discharge its tritones without moving out of the matrix of ic3-related chords (i.e., there is no V7–I motion possible). The *x*-axis (ic5) has different properties: (1) it mobilises the cycle of root-fifths motion and thereby has diatonic pull and attraction; (2) its V–I motion can also be substituted by hexatonically-related chords (represented on the diagonal axis ⭧) that propel through an alternative resolution pathway. Circular nodes and arrows illustrate chord roots pushing from left to right through the space. Thus the opening of *Licht in der Nacht* (see Fig. 1) is reduced to a whole-tone related circles (chords) around an axis of B<flat> (in this case perhaps a minor-third substitution for the connecting root-fifth G).

[INSERT Fig. 1 NEAR HERE]

In order to reflect more clearly progressions like this one, progressions that also represent the emergence of light from darkness. Two important moments from *Laue Sommernacht* (1900–1901) serve as direct parallels to *Licht in der Nacht*. From the dark chromatics of Mahler’s setting of Otto Julius Bierbaum’s text[[5]](#endnote-5) the lightness starts to shine through with just this kind of propulsive diatonic forward motion. The first of such moments (See Ex. 3a) befalls when the lovers rest in each other’s arms through the dark night (‘Hielten staunend uns im Arme / In der dunklen Nacht’). The corresponding final stanza answers this with an equally directed parallel variant (see Ex. 3b), replacing the image of togetherness with the light of ‘love’ that shines in the darkness (‘da in seine Finsternisse / Liebe, fiel Dein Licht’), which provides respite from the chromatic groping and searching (‘Nur ein Tappen, nur ein Suchen’). On the first occasion, a directed motion runs from A to A via a clear cycle of fifths (see Fig. 2) with occasional disruptions such as the minor-third motion between E and C<sharp>7<flat>5 that merges E, C and G seventh chords into a fluid blend of octatonic pitches. On the second occasion, with a clearer affirmation of light and a strident G<sharp>ø7→C<sharp>ø7→F<sharp>7→B[[6]](#endnote-6) (see Fig. 3), the phrase is replayed as the mist dissolves. We ultimately land on a pregnant E7, preceded by F7 that can then be heard as a German-sixth in A major. Thus the passage, twice played, shapes its diatonic light along a clearer cycle of fifths.

[INSERT Ex. 2 NEAR HERE]

[INSERT Ex. 3a & b NEAR HERE]

[INSERT Fig. 2 NEAR HERE]

In another instance – *Ekstase* from *Fünf Gesänge*, a song which Filler summarises as ‘the glory of the sun in the heaven’ (1983, 436) – a sudden break from C minor/major resolves into the obscure region of D<flat> when the wanderer embraces the light and is launched skywards (‘Da breit' ich Wandrer meine Arme aus/ und in das Licht verweh ich wie die Nacht,/ die in die Morgenrötenblust vergeht’). The chord progression beneath sits on A<flat> minor/F7 before progressing to B<flat> minor and E<flat> along the cycle of fifths to A<flat> and D<flat>. This thrust through Weber space (Fig. 4), coinciding with the struggle towards light, is the only moment when harmonic momentum is gathered in *Ekstase*, which otherwise celebrates the delight of fulfilment through plagal triadic motion rather than through the insatiable *Sehnsucht* of dominant striving *Will*.

[INSERT Ex. 4 NEAR HERE]

[INSERT Fig. 4 NEAR HERE]

Perhaps the most touchingly diatonic moment in Mahler’s entire oeuvre is the closing nostalgic theme (see Ex. 5) that bursts through and represents the song of praise sung by children who are heard through the fog (‘A little light shone out, / And through smoke and fog / A song of praise began, /Sung by children’) in *Die Stille Stadt*. In several ways it foreshadows the melodic fragment heard on the horn that surfaces as a distant memory in Richard Strauss’s *September* from *Vier letzte Lieder*. In Mahler’s song, the clearly D major shaft of light follows the solid I–ii–V7–I progression before the sinister darkness envelops us once again with its minorizing reminiscence of the introductory mists. Click captures the song’s focus on light in a nutshell:

A short transition follows based on a fully-diminished sonority in which the bass line descends (as did the previous melodic line) by half-step, enabling that sonority to change into a dominant-seventh sound which actually functions as an augmented-sixth chord whose unexpected resolution underscores the appearance of the ‘tiny light’ in measure 26. (Click 1993, 50)

This trope – associating light with a diatonic struggle through dark chromatics – may pass from Mahler’s teacher Zemlinsky, whose *Heilige Nacht* Op. 2/i begins with a progression that homologises the search for light (or the bright star) with the cycle of fifths (Ex. 6). The flow of F<sharp>→B→E in mm. 11–12 takes a deceptive cadence to C as the star is evoked. The progression in the following bars, although involving several substitutions and small reversals, still wends its way from left to right in Weber space (see Fig. 5).

[INSERT Ex. 5 NEAR HERE]

[INSERT Fig. 5 NEAR HERE]

Returning to *Licht in der Nacht*, the situation is more complex as this chapter will unravel, but the light at the song’s close reaches a recitative-like pause on E7 in m. 30 (Ex. 1). This E7 is sustained as a fermata though the influx of recitative *secco* as a glimmer of operatic narrativity (referring to the texture perhaps of *Ansturm* from the same set) that is quickly abandoned in favour of the dance topic that pulls chromatically (and quite mechanically) downwards to indicate the heaviness of the night (‘Und die Nacht wird schwer’). The darkness wins.

Hidden lights throughout Mahler’s *oeuvre* act as vital oppositions to the chromatic mists that surround, often setting the subjectivity of the individual into play as s/he becomes fascinated by the light and fixes on it as the object of desire. In such moments the harmonic progressions become diatonically directed. While it may seem trite to assume a one-to-one connection between the binaries of diatonicism/chromaticism with light/darkness, there are benefits in working through the assumption, particularly to our reading of *Licht in der Nacht*. What is at stake is the potential to analyse the deeper *Affekt* of these dialogues – poetic and musical – between normal tonal motion and the stillness that inheres in Mahler’s unusual chromatic progressions.

**Transformation, Resolution, Stillness and Motion**

Pushed to its limits, *Licht in der Nacht* leads through pointed resolutions of diatonic strength (F→B<flat>→C→F→) to flashes of octatonic stasis on the word ‘*Stern*’ – the source of all light.[[7]](#endnote-7) The word ‘Stern’ introduces the stillness that rests on the ic3 axis as a special *Auskomponierung* of the diminished-seventh in measures 11–12. Underpinned by E<flat>, the diminished-seventh passes over Cø7, A7, and F<sharp> minor, representing four diminished nodes of the OCT0,1 collection that would fill a single column of Weber space. None of these chords can resolve into any of the other because none contain the necessary leading-tones to do so. Descending from this octatonic plateau, we reengage with the striving and searching of the progression Fø7–G7–E<flat> in mm. 13–14, which runs pseudo-diatonically as a iv–V–<flat>iii deceptive cadence in the key of C minor. In presenting the climactic moment as an octatonic collection that indicates a single object – perhaps a cubist one with its four ic3 pillars – this essential moment suggests that the whole harmonic subject is a plant-like subject striving for light through the diatonic root-based fifth course: the fifth-motion is not representative of *light itself*.

As we thematically zoom in closely on the glimmer of light from the timid star, we effectively stare into the eye of the sun and this small moment of stasis – as if we see from the sun’s perspective – forms a thematically telling trope found in other Mahler songs that display self-enclosed resolutions of the tetrachords that became her trademark. One characteristic fingerprint, probably inherited from Zemlinsky, is the ‘parsimony’ between tetrachords that tickle our neo-Riemannian pleasure centers. We certainly find examples of the hexachordal connections of Romantic triadic music, such as this passage from *Ansturm* (see Ex. 7) that rotates Cohn’s ‘Northern’ hexatonic system with **L** and **PL**-transformations.[[8]](#endnote-8) These are clearly triadic, but in *Licht in der Nacht*, tetrachordal progression is the mainstay of the more chromatic material, tending towards octatonic rather than hexatonic spaces. As Dmitri Tymoczko claims, ‘Triads are from Mars: Seventh chords are from Venus’ (Tymoczko 2011, 97 and 220). Notwithstanding their complexity, many of these tetrachords flow into each other extremely parsimoniously, usually by altering no more than two semitones in voice-leading. One of the neatest examples in Mahler’s whole collection, where maximum effect is wrought from an economy of means, is the introduction to *Ansturm*. The common two-semitone-move toggles between Aø7 and A7, although the first chord is presented on *c* as a minor chord with added sixth. Filler claims, ‘Alma appears to have had an arch effect in mind when setting this text. The song begins and ends in almost static chords, which gradually give way to a greater movement employing descending arpeggios’ (Filler 1983, 434). Adrian Childs described this kind of static motion in 1998, categorising nine different types of ‘*P*2-transformation’, where *P* is the parsimonious relationship and *n* (in this case equalling 2) being the number of voices in which chords differ by a half-step. Of these nine relationships, ‘S’ employs similar-motion semitone changes, and ‘C’ runs in contrary motion. A number to the right indicates the interval class (ic) of the retained pitches, and the parenthetical number represents the ic of the movable pitches; thus Aø7–A7 is classed asS2(3) according to Childs’ catalogue of *P*2s. A perhaps more visually striking way of demonstrating these is Cohn’s voice-leading zone (see Fig. 6), each node representing a distinct tetrachord, with the connecting lines representing a single semitone movement.[[9]](#endnote-9) Fig. 7 thus renders the static passage from *Anstrurm* (on a section of Cohn’s clock face), while Fig. 8 shows similar moments from *Licht in der Nacht*.

[INSERT Fig. 6 NEAR HERE]

[INSERT Fig. 7 NEAR HERE]

[INSERT Fig. 8 NEAR HERE]

In *Licht in der Nacht*, progressions such as the F7<flat>5→G7 in m. 13 (see Fig. 8a) which connect via an unheard Fø7 and Fo7 display a static unstable tritone with moving parallel fourth. A similar occurrence at the end of m. 17 moves from G7 to Fø7 (S6(5)) and on to D<flat>7, ultimately passing from one seventh chord to its tritone transposition. These *P2* progressions theoretically pass through the D°7 but never articulate it. Adding to our previous discussion, a very common relevant harmonic experiment occurs on the second climactic iteration of the word ‘*Sterne*’ in m. 23 (see Fig. 9), likewise ushering in ic3-related chords at the source of light, this time posing as different resolutions of a *Tristan* chord; F<sharp>ø7resolves to D7 (bothsemitone movements occur in the same voice, moving *e* a whole-tone down to *d*) which immediately returns to F<sharp>ø7. However, F<sharp>ø7 resolves again to a different chord, octatonically-related to the first – B7 (an S3(4) *P*2-transformation because the minor third *f*<sharp>/*a* remains, while the *c*/*e* descend in parallel to *b*/*d*<sharp>). The raised-root intensification continues the ingenious contrary-motion of the inner voices. All of these chords involve two semitone movements, though the F<sharp>ø7 is a resolving motion from one zone to another.[[10]](#endnote-10)

[INSERT Fig. 9 NEAR HERE]

A similar move, which again involves repetition, as if the subject behind the harmonic progression is fumbling in the dark, occurs in the opening of *Die Stille Stadt*, which serves as a blueprint for *Licht in der Nacht*. Fig. 10 shows the theoretical rather than the actual paths taken. To get from D→Fø7 is four moves[[11]](#endnote-11), and involves a series of minor contractions over the root, followed by augmentation of the root. The actual progression runs D(7)→Fø7–Bø7 // D(7)→Fø7→B<flat>7. To get from Fø7→B<flat> is a *P*2-transformation, which is a slick S3(4) because the *c*<flat>/*e*<flat> descends by semitone to *b*<flat>/*d*. The initial move from Fø7–Bº7 was a much easier *P1*-transformation with only one pitch altered (*e*<flat>→*d*) to effect the change, but this first progression leads to an ‘inert’ diminished-seventh chord that has too much choice in its potential four-way resolution. Perhaps this has already emerged as a distinct theme in Mahler’s harmony – the frequent jostling between chord progressions as if each reacts to feedback and is always ready to replayitself into different outcomes. In short, it is *cybernetic*[[12]](#endnote-12) – responsive to feedback loops. This concept will be developed in due course but for now we note that each modification is an *intensifier* of the need to discharge. Each projects the need to resolve differently, arguably more intensely. D7’s transformation into any of the stages it meets on its way to Fø7 raises the need to move into next voice-leading zone: if the *a*<natural> lowers to *a*<flat> to become a French sixth, the need to resolve is spiced up; even more so if the *f*<sharp> becomes *f* to form a *Tristan* chord; yet again if the *d* root itself rises to *d*<sharp>. These chords essentially pass the same octatonic energy around a self-fulfilling loop. Only the step from chord F directly to B<flat> has a discharging effect, and would move into the right-hand column of Weber space. Circular effects create tension within stasis; such is the atmosphere of the quiet city of the song. Crucially though, we cannot but rehear the opening of *Licht* *in der Nacht* as a transparent reworking of this same progression from D minor to B<flat>7, now ‘parsimonious’ in a different way.

**B<flat> Breakthroughs**

*Licht in der Nacht* operates in the same key as *Die Stille Stadt*, D minor, and in its minimal contrapuntal motion lies a pseudo-voice-exchange that ensures that both D minor and B<flat> are projected at the same time. The B<flat> breaks through more forcefully as the light ‘timidly’ starts to materialise. How we conceptualise this breakthrough is crucial. The murky limbo world of darkness is depicted by the chromatic alternations between the minor chord and its maximally-smooth T4 hexatonically-related major chord. An atmosphere is not entirely static with hexatonic T4 relations as it would be for octatonic T3 relations; in D→B<flat> *a* rises to *b*<flat> to form a pseudo- <^>7–<^>8 resolution in that key. Throughout Mahler’s oeuvre, B<flat> chords occur at ‘breakthrough’ point (particularly as a threat to a D major or minor key), marking a consistent trope. B<flat> permeates *Die Stille Stadt*, culminating in a fermata that emphasises B<flat>7 (spelled with *g*<sharp>) above an E pedal – a feature already noted in *Licht in der Nacht*. The chord then proceeds the final postlude.

These progressions in *Licht in der Nacht* are once again informed by intra-opus listening. In the final song of the *Fünf Lieder*, *Ich Wandle unter Blumen*, the chord disrupts a C major setting as the protagonist falls to the feet of his beloved in the frenzy of ‘*Liebestrunkenheit’*, becoming an authentic cadence in E<flat> before the final authentic cadence in C. In *Ansturm,* B<flat> major-seventh breaks through the (arguably) D minor texture as representative of light, and returns again in the song’s coda. To close of one of her most powerful songs, a setting of a text by her future husband, Franz Werfel, *Der Erkennende*, again in D minor, Mahler accompanies the moment of renunciation (the final stanza, ‘*Eines weiß ich: nie und nichts wird mein*’) with a sudden lurch to B<flat> (see Ex. 8). From here to the end, Mahler wends her way back to D minor. The B<flat>7 sonority combines with the pitch *e* to form various hybrid French sixth chords that act as pre-dominants. In what *appears* to be a different key, *Ansturm*’s early *Durchbruch* occurs at m. 5, again at a climax point. Click notes the chord’s actions within the song itself: ‘a B<flat> major chord with an added major seventh appears; it returns as the sonority for the climax of the piece in measure 14 and again in the postlude (Click, 60)’. B<flat> is thus associated with the processes by which ‘dark desire’ breaks through into the light of day (‘*O zürne nicht/ wenn mein Dunkel aus seinen Grenzen bricht/ Soll es uns selber nicht verzehren/ Muß es heraus ans Licht!*’). Initially, after B<flat>, an E minor seventh transforms into a French sixth, using *b*<flat> as the diminished fifth. This E7<flat>5/B<flat>7<flat>5 interrupts as desires burst through their boundaries. The chord moves parsimoniously to C7 rather than A again, thus drawing-out in a different way, the C root of the opening Aø7. In *Ansturm*’s vocal climax on *f*, an F major chord appears, followed by a second upwards vocal leap to *g* where a B<flat> major seventh with added extra zest (*g*) makes a IV of F. It thus appears as a ‘breakthrough’ chord. Again, at the very close of the song, it is used to articulate <flat>VII–V. First it moves to A minor, then to A7. The piece ends in the same way as *Licht in der Nacht*, retroactively marking the song as D minor. In all songs, as in *Licht in der Nacht*, B<flat> appears as an outsider, but through repeated interpretation as <flat>VI, it is made to feel at home. And this repetition of the chord and its syntactical meaning take us closer to the heart of *Licht in der Nacht*.

[INSERT Ex. 8 NEAR HERE]

## **Cybernetics?**

Mahler’s chromatic technique is made idiosyncratic by her disposition to shuttle her chord progressions back and forth before proceeding, changing the exact nature of each revisited chord in response to its effect. And B<flat> plays a recurring part in this. Apart from the instances noted above, Click finds this cybernetic energy in the opening four chords of *Licht in der Nacht*:

The challenge to match its erotic mood through musical expression is met quite aggressively by the composer. Dehmel's subject of sexual tension and release is simulated most obviously in increasing rhythmic density. Although the key is ambiguous throughout, certain repeated sonorities and bass lines help to structure the piece. For example, the first two chords are immediately repeated, but with different doublings and roots. The first chord, in particular, becomes even more important because it returns with its original voicings in measure 24 as the piece draws to a close. (Click, 60)

Click describes Mahler’s harmonic cybernetic technique of repeating a phrase with newly-altered endings: ‘She often begins phrases with similar harmonic movement and then alters the ends of them in ever-evolving variation. This is probably a direct inheritance from her teacher Alexander Zemlinsky’.[[13]](#endnote-13) This tendency towards the self-improvement of the musical subject is a strand which runs through *Licht in der Nacht*. Even on the surface it jumps out at us. The motive of submission (*verzagen*), when the heart wants to give up in despair, contains an obvious minor-sixth droop (mm. 16–17), and while the subsequent rising leap from *f*<sharp> to upper *g* on ‘*Herz*’ seems resolute and almost optimistic, it immediately descends to *e*<flat> in m. 16. In m. 17 it is repeated but with the rhythmic character of a tragic *marche funèbre*, which is passed to the piano in the following measure and extended further to *f* to form a seventh descent in F7 first, and a suspended descent over D<flat> in m. 20, resolving melodically and chromatically from *e*<flat> to *d*<natural> in m. 21. Smith finds this same motive in *Laue Sommernacht*: ‘It is definitely Tristanesque, notably where the voice swoops down, on the Tristan-chord, on the words “fiel dein (Licht)”. […] One thinks immediately of Isolde’s torch. […] The voice expires on the chord of the dominant seventh, as does the piano-part in the postlude’.[[14]](#endnote-14) The motive certainly transforms itself throughout and between these songs, but superficial motivic changes may mask a harmonic profundity. In *Laue Sommernacht* the false-relation in m. 5 emerging between E7 and C<sharp>7 is ironed-out in the parallel moment at the ending of the song as the protagonist feels the light of heaven. Similar cybernetic narratives operate in *Licht in der Nacht* where the voice pushes towards a climax on E<flat>, but cannot seem to ascend further. When it admits defeat in mm. 16–17, the Bm7–E<flat> progression is transformed into a D–B major progression. The enharmonically altered B contains both <^>5 and <flat><^>6, using the *e*<flat> as <^>3 of B. This subsequently switches to G7 which aims for C minor, but G7 is instead transformed into Fø7 andmovesonto D<flat>7. Note that this series of Childs’ *P*-operations (first *P*2 S6(5) then *P*1) retain the ic6 tritone that must resolve, initially to C minor, but through the G7–D<flat> transformation it resolves to its tritone counterpole, F<sharp>. Thus Mahler uses the half-diminished chord as a parsimonious connector that reshapes the tritone interval between two tritone counterpoles – a further cybernetic manoeuvre. The harmony then moves us on to D7 from F<sharp>ø7 on *Stern*, by a simple P1 that raises *d*→*e* to show that there is life left after the heart has given up, transforming the melodic loss of will from the previous phrase into a new climax.

Perhaps the most salient cybernetic harmonic narrative in the song is the ‘sticking’ progression that generally juxtaposes B and E<flat> chords in different forms and is first associated with the lover’s ‘*Herz*’that leads to the moment of submission. The event comes several times in different guises and is extended each time. It pays to examine each of these moments of change, setting each as variant of the paradigm established in m. 16. The basic progression of B minor → E<flat> is felt as a half cadence. In a sense this is backward looking; the second chord contains the leading-note of the first, and it would mark a movement backwards in Weber space. In the immediately repeated version, the B now resolves to a G+ (B’s *f*<sharp> leading-note discharging to G) showing that the human spirit can prevail. Despite this immediate variation that transforms failure into (moderate) success, ‘failure 1’ (as I have annotated on the score) is repeated five times in fresh forms before its ultimate success. I examine each transformation (marked as cardinal failures) in turn.

*Failure 2* (mm. 23–24)

The F<sharp>ø7 resolves twice: first to D, second to D’s substitute B which passes into E<flat> as a hexatonic relation with no chordal resolution. That this progression, denied of resolution, occurs after the heavenly vision of the stars is surely a symbol of the failure of the heavens to hear the supplicant.

*Failure 3* (mm. 25–27)

The following B moves ultimately to Fø7 (m. 29) through which *e*<flat> and *b* are prolonged as binding-notes via E<flat>–B7–A<flat> minor – A7. In this progression the A<flat> minor element of the Fø7 slips a semitone upwards and the chromatic tetrachords reveal their construction as triadic independent elements. This all descends, and A<flat> minor is rearticulated at the close of m. 28. The light above the stable of Christ reaches the upper G melodically – one notch higher than the previous vocal climax on the *f*<sharp> *Sterne*, but again this is not supported by a fulfilling cadence. The poetic message is clear.

*Failure 4* (m. 29)

Here the light goes out. The B, much insinuated in the preceding bars, resolves to E<flat> rather than the E <natural> that is needed. But E is then heard as a fermata, as if its root-fifth connection to B is kept secret; the door is closed and the light is left outside. But the potent tritone pitches of the E7 are maintained in the B<flat>7 that then becomes characteristic of the subsequent dance-like accompaniment, meaning that the harmony now searches for E<flat> or A.

*Failure 5* (mm. 33–37)

The night is heavy. The bass grinds down in whole tones (*e*<flat>–*d*<flat>–*b*–*a*), leading B down to both A minor and its tritone counterpole E<flat>. The E<flat> sustains for a long pedal under chromatic descending thirds – a further topic of failure or, in this case, *sleep*.

*Successes* (m. 29)

Success does not come from resolution along the B<flat>–E<flat>–A<flat> axis nor the B–E–A line. It comes from the chromatic descending motion from E<flat>7–D as part of final chromatic plunge. This is the last such gesture before the return of the head motive. The tonic D is approached from the tritone counterpole of its chord V (A), whose tritones have identical pcs *c*<sharp>/*g*. The cybernetic qualities of Mahler’s harmonic phrase construction do not end here. The T11 descent as resolution is recontextualised in the final measures where an enharmonic German sixth (B<flat>7) leads to V pedal *a*, which requires D to finish the song. We end in darkness again with the bass V. The pedal *a*’s dominant quality envoices B<flat> as <flat>VI, and the following song begins on D, yoking the two songs together.[[15]](#endnote-15) Incidentally, this ending demonstrates the strong connections with *Ansturm*, which similarly ends with B<flat>–A7, making the B<flat> retrospectively act as <flat>VI→V7, emphasising D as shared Tonic. Thus the cybernetic qualities of Mahler’s cadences enact a dialogue not confined to individual songs, but to an emerging poetics. As Click explains, ‘The last song, *Erntelied*, then begins on a D<flat> major chord; even though this is the wrong tonic to resolve the previous dominant-seventh chord, a certain feeling of resolution is present due to a median relationship between the two chords and the common pitch C<sharp>/D<flat> (Click, 47)’. *Laue Sommernacht* similarly ends F7–E as V of A, and the tendency to conclude in this ambiguous way is one of several strands that weaves throughout her oeuvre not as clichés but as harmonic fingerprints that were ever-changing, ever-developing, and ever-enlightening. Whether we conceive of them as cybernetics or as something less systematic, they work in the manner of what would become Schoenberg’s ‘developing variation’ only perhaps in a more teloological framework and in the additionally harmonic parameter. It is clear that Mahler’s songs, while clearly not conceived with the intricacy of Berg’s Op. 2 settings, nor with the harmonic consistency of Schoenberg’s *Das Buch der hängenden Gärten*, were working in the same direction, and were in any case far richer than her teacher Zemlinsky’s early Op. 2 songs. The songs are much more than the ‘juvenilia’, and the fact that they are in themselves clearly so analytically rewarding, only reopens the old wound that she was not able to develop a compositional career.

1. As Sarah Click observes in her thesis on the songs of Alma Mahler and Lili Boulanger: ‘Although most women composers wrote works more fitting for the ‘salon’ than for the concert hall at the turn of the century, Boulanger and Mahler are representative of the few women composers whose complex approach to art song fell within the mainstream of the genre. Many of their accompaniments attain a level of technical difficulty not previously found in women composers' writing.’ (Click 1993, unpaginated abstract) [↑](#endnote-ref-1)
2. In 1950, Warren Storey Smith claimed that from ‘the little music of Alma Mahler that is available in print one can readily discern that her musical personality was quite distinct from that of her famous husband’; further: ‘Mahler’s music is predominantly diatonic, while Alma, a true post-Wagnerian, had a chromatic bee in her bonnet’ (74). Click, suggested that ‘Alma Mahler's works are nothing like the style and harmonic language of her husband Gustav’ (Click 1993, 8). Blaukopt defines Alma’s personality against Gustav’s, suggesting that her songs ‘do not show the Gustav Mahler imprint. They are of an entirely different style— that of Alma Mahler.’ (Music Review 1988 [citation missing]). [↑](#endnote-ref-2)
3. In a *Guardian* interview, singer Sarah Connolly claims, ‘her harmonic language is formed from the influences of her teacher Zemlinsky, and of Arnold Schoenberg and Alban Berg’ (Connolly 2010). [↑](#endnote-ref-3)
4. I elsewhere (Smith 2011; 2017) modify Lerdahl’s Weber space – or ‘ic3 x ic5’ *Tonnetz* as Cohn (2011, 322) dubs it – by collapsing major and minor into a single chord letter name, and rotating Lerdahl’s grid by 90o to render the passage of time from left to right more visually. [↑](#endnote-ref-4)
5. Mahler misattributes this to Gustav Falke. [↑](#endnote-ref-5)
6. I use arrows (→) to indicate motion left to right in Weber space. [↑](#endnote-ref-6)
7. We register this as OCT0,1 where 0, 1 equals the pcs *c* and *c*<sharp>. [↑](#endnote-ref-7)
8. Cohn (17) divide the 12 major and minor triads into four hexatonic regions (ic4-cycles), arranged as North, South, East and West. [↑](#endnote-ref-8)
9. The symbol 🞁represents the minor-seventh chords, and ✯ represents the French sixth (7<flat>5). [↑](#endnote-ref-9)
10. Note that I hear the B7 as major, despite the lack of a third; the following *e*<flat> is heard as *d*<sharp> for me, though others may be persuaded more by the lingering *d*<natural> to hear a minor inflection. [↑](#endnote-ref-10)
11. I here imagine the driving seventh above the contextually curiously triadic D major, our imaginations pre-empting the actual seventh which hovers in the air above this chord at other points in the song. [↑](#endnote-ref-11)
12. The interdisciplinary term ‘cybernetics’ is used to denote self-regulatory systems that respond to feedback loops. It was coined by Norbert Wiener in his 1946 *Cybernetics: Or Control and Communication in the Animal and the Machine*. [↑](#endnote-ref-12)
13. Sarah D. Click, ‘Art Song by Turn-of-the-Century Female Composers: Lili Boulanger and Alma Mahler, a Lecture Recital, Together with Three Recitals of Selected Works of R. Schumann, J. S. Bach, F. Chopin, M. Ravel, J. Brahms, F. Schubert and Others’ (University of North Texas, 1993), 27. [↑](#endnote-ref-13)
14. Warren Storey Smith, ‘The Songs of Alma Mahler’ *Chord and Discord* 2, no. 6 (1950), 77. Click too: ‘The last line of the text “fiel dein Licht” shows a notable example of her word-painting by the fall of a minor seventh in the vocal line, while harmonically the accompaniment employs the Tristan" chord’. (Click 1993, 54) [↑](#endnote-ref-14)
15. As Click notes, ‘This would offer a possible connection to *Waldseligkeit* which begins with the single pitch D’ (Click, 47). [↑](#endnote-ref-15)