## Extracts from Erasmus Darwin's Epic Poetry

(Taken from Cosmologia, ed. Stuart Harris, 2002 [ISBN 095421510 9])
From: Economy of Vegetation [1791]
Canto One

1. Creation of the Cosmos: 11. 103-04
"'Let there be light!' proclaim'd the Almighty Lord. Astonish'd Chaos heard the potent word. Through all his realms the kindling Ether ${ }^{1}$ runs, And the mass starts into a million suns; Earths round each sun with quick explosions burst, And second planets issue from the first; Bend, as they journey with projectile force, In bright ellipses their reluctant course; Orbs wheel in orbs, round centres centres roll, And form, self-balanced, one revolving Whole. Onward they move amid their bright abode, Space without bound, the bosom of their God!"
2. Phosphorescence: 11. 189-208
" You with light gas the lamps nocturnal feed, Which dance and glimmer o'er the marshy mead; Shine round Calendula at twilight hours, And tip with silver all her saffron flowers; Warm on her mossy couch the radiant worm; Guard from cold dews her love-illumined form; From leaf to leaf conduct the virgin light, Star of the earth, and diamond of the night. You bid in air the tropic beetle burn, And fill with golden flame his winged urn; Or gild the surge with insect-sparks, that swarm Round the bright oar, the kindling prow alarm; Or arm in waves, electric in his ire, The dread Gymnotus with ethereal fire:
Onward his course with waving tail he helms, And mimic lightnings scare the watery realms.
[^0]So, when with bristling plumes the bird of Jove Vindictive leaves the argent fields above, Borne on broad wings the guilty world he awes, And grasps the lightning in his shining claws."
3. Roger Bacon \& gunpowder: 11. 237-52
" You taught mysterious Bacon to explore Metallic veins, and part the dross from ore; With sylvan coal in whirling mills combine The crystall'd nitre, and the sulphurous mine; Through wiry nets the black diffusion strain, And close an airy ocean in a grain. Pent in dark chambers of cylindric brass, Slumbers in grim repose the sooty mass; Lit by the brilliant spark, from grain to grain Runs the quick fire along the kindling train; On the pain'd ear-drum bursts the sudden crash, Starts the red flame, and Death pursues the flash. Fear's feeble hand directs the fiery darts, And Strength and Courage yield to chemic arts; Guilt with pale brow the mimic thunder owns, And tyrants tremble on their blood-stain'd thrones."

## 4. Steam-powered water-pump: 11. 263-78

" The Giant-power from earth's remotest caves Lifts with strong arm her dark reluctant waves; Each cavern'd rock and hidden den explores, Drags her dark coals, and digs her shining ores. Next, in close cells of ribbed oak confined, Gale after gale, he crowds the struggling wind: The imprison'd storms through brazen nostrils roar, Fan the white flame, and fuse the sparkling ore. Here high in air the rising stream he pours To clay-built cisterns, or to lead-lined towers; Fresh through a thousand pipes the wave distils, And thirsty cities drink the exuberant rills. There the vast mill-stone with inebriate whirl On trembling floors his forceful fingers twirl, Whose flinty teeth the golden harvests grind, Feast without blood! and nourish human-kind."
5. Producing rain electrically: 11. 547-56
" Should Solstice, stalking through the sickening bowers, Suck the warm dew-drops, lap the falling showers, Kneel with parch'd lip, and bending from its brink From dripping palm the scanty river drink, Nymphs! o'er the soil ten thousand points erect, And high in air the electric flame collect. Soon shall dark mists with self-attraction shroud The blazing day, and sail in wilds of cloud: Each silvery flower the streams aerial quaff, Bow her sweet head, and infant Harvest laugh."

## Canto Two

6. Origin of the Moon: 11. 67-82
" You! who then, kindling after many an age, Saw with new fires the first volcano rage, O'er smouldering heaps of livid sulphur swell At Earth's firm centre, and distend her shell; Saw at each opening cleft the furnace glow, And seas rush headlong on the gulfs below. Gnomes! how you shriek'd! when through the troubled air Roar'd the fierce din of elemental war; When rose the continents, and sunk the main, And Earth's huge sphere exploding burst in twain. Gnomes! how you gazed! when from her wounded side, Where now the South-Sea heaves its waste of tide, Rose on swift wheels the Moon's refulgent car, Circling the solar orb, a sister-star, Dimpled with vales, with shining hills emboss'd, And roll'd round Earth her airless realms of frost."
7. Forging steel: 11. 183-92
" Hence dusky Iron sleeps in dark abodes, And ferny foliage nestles in the nodes; Till with wide lungs the panting bellows blow, And waked by fire the glittering torrents flow. Quick whirls the wheel, the ponderous hammer falls, Loud anvils ring amid the trembling walls; Strokes follow strokes, the sparkling ingot shines, Flows the red slag, the lengthening bar refines;

Cold waves, immersed, the glowing mass congeal, And turn to adamant the hissing Steel."
8. Slavery: 11. 421-30
" Hear, oh, Britannia! potent Queen of isles, On whom fair Art and meek Religion smiles, How Afric's coasts thy craftier sons invade With murder, rapine, theft - and call it Trade! The slave, in chains, on supplicating knee Spreads his wide arms and lifts his eyes to thee, With hunger pale, with wounds and toil oppress'd, 'Are we not brethren?' Sorrow chokes the rest. Air! bear to heaven upon thy azure flood Their innocent cries! - Earth! cover not their blood!"
9. Spring Growth of Vegetation: 11. 542-64
" Go, gentle Gnomes! resume your vernal toil, Seek my chill tribes which sleep beneath the soil; On grey-moss banks, green meads, or furrow'd lands Spread the dark mould, white lime, and crumbling sands; Each bursting bud with healthier juices feed:
Emerging scion or awakened seed.
So in descending streams the silver chyle ${ }^{2}$ Streaks with white clouds the golden floods of bile; Through each nice valve the mingling currents glide, Join their fine rills, and swell the sanguine tide; Each countless cell and viewless fibre seek, Nerve the strong arm and tinge the blushing cheek. Oh, watch where, bosom'd in the teeming earth, Green swells the germ, impatient for its birth; Guard from rapacious worms its tender shoots, And drive the mining beetle from its roots; With ceaseless efforts rend the obdurate clay, And give my vegetable babes to day!"

## Canto Three

[^1]
## 10. James Brindley's Canals: 11.321-36

" Your virgin trains on Brindley's cradle smiled, And nursed with fairy-love the unletter'd child, Spread round his pillow all your sacred spells, Pierced all your springs, and open'd all your wells. As now on grass, with glossy folds reveal'd, Glides the bright serpent, now in flowers conceal'd; Far shine the scales that gild his sinuous back, And lucid undulations mark his track;
So with strong arm immortal Brindley leads His long canals, and parts the velvet meads; Winding in lucid lines, the watery mass Mines the firm rock, or loads the deep morass, With rising locks a thousand hills alarms, Flings o'er a thousand streams its silver arms, Feeds the long vale, the nodding woodland laves, And Plenty, Arts, and Commerce freight the waves."

## 11. Vegetation's Dependence on Water: 11. 509-26

" On Spring's fair lap, cerulean Sisters! pour From airy urns the sun-illumined shower, Feed with the dulcet drops my tender broods, Mellifluous flowers and aromatic buds; Hang from each bending grass and horrent thorn The tremulous pearl that glitters to the morn; Or where cold dews their secret channels lave, And Earth's dark chambers hide the stagnant wave, O, pierce, ye Nymphs! her marble veins, and lead Her gushing fountains to the thirsty mead;
Wide o'er the shining vales and trickling hills Spread the bright treasure in a thousand rills. So shall my peopled realms of Leaf and Flower Exult, inebriate with the genial shower; Dip their long tresses from the mossy brink, With tufted roots the glassy currents drink; Shade your cool mansions from meridian beams, And view their waving honours in your streams."
" You charm'd, indulgent Sylphs! their learned toil, And crown'd with fame your Torricell and Boyle;
Taught with sweet smiles, responsive to their prayer, The spring ${ }^{3}$ and pressure of the viewless air:
How up exhausted tubes bright currents flow Of liquid silver from the lake below, Weigh the long column of the incumbent skies, And with the changeful moment fall and rise. How, as in brazen pumps the pistons move, The membrane-valve sustains the weight above; Stroke follows stroke, the gelid vapour falls, And misty dew-drops dim the crystal walls; Rare and more rare expands the fluid thin, And silence dwells with vacancy within. So in the mighty void, with grim delight, Primeval Silence reign'd with ancient Night."

## 13. Submarines and Oxygen: 11. 195-200

" Led by the sage, Lo! Britain’s sons shall guide Huge sea-balloons beneath the tossing tide. The diving castles, roof'd with spheric glass, Ribb'd with strong oak, and barr'd with bolts of brass, Buoy'd with pure air shall endless tracks pursue, And Priestley's hand the vital flood renew."
14. Vegetable Reproduction: 11. 381-94
" Lo! on each seed within its slender rind Life's golden threads in endless circles wind: Maze within maze the lucid webs are roll'd, And, as they burst, the living flame unfold. The pulpy acorn, ere it swells, contains The oak's vast branches in its milky veins, Each ravell'd bud, fine film, and fibre-line Traced with nice pencil on the small design. The young Narcissus, in its bulb compress'd, Cradles a second nestling on its breast, In whose fine arms a younger embryon lies,

[^2]Folds its thin leaves, and shuts its floret-eyes. Grain within grain successive harvests dwell, And boundless forests slumber in a shell."
15. Vegetable Blight: 11. 511-22
" Shield the young harvest from devouring blight, The smut's dark poison and the mildew white, Deep-rooted mould and ergot's horn uncouth, And break the canker's desolating tooth. First in one point the festering wound confined Mines unperceived beneath the shrivell'd rind; Then climbs the branches with increasing strength, Spreads as they spread, and lengthens with their length. Thus the slight wound ingraved on glass unneal'd Runs in white lines along the lucid field: Crack follows crack, to laws elastic just, And the frail fabric shivers into dust."

From: The Loves of the Plants [1789]
Canto One
16. Autumn: 11. 199-212
" When o'er the cultured lawns and dreary wastes
Retiring Autumn flings her howling blasts;
Bends in tumultuous waves the struggling woods, And showers their leafy honours on the floods;
In withering heaps collects the flowery spoil, And each chill insect sinks beneath the soil; Quick flies fair Tulipa the loud alarms, And folds her infant closer in her arms; In some lone cave, secure pavilion, lies, And waits the courtship of serener skies. So, six cold moons the dormouse charm'd to rest, Indulgent Sleep! beneath thy eider breast, In fields of fancy climbs the kernell'd groves, Or shares the golden harvests with his Loves."

## Canto Two

17. Industrial cotton-spinning: 11. 93-104
"First, with nice eye emerging Naiads cull From leathery pods the vegetable wool; With wiry teeth revolving cards release The tangled knots and smooth the ravell'd fleece; Next moves the iron-hand with fingers fine, Combs the wide card and forms the eternal line; Slow, with soft lips, the whirling can acquires The tender skeins, and wraps in rising spires; With quicken'd pace successive rollers move, And these retain, and those extend, the rove ${ }^{4}$; Then fly the spoles, the rapid axles glow, And slowly circumvolves the labouring wheel below."
18. Clock mechanism: 11. 173-182
"First, in its brazen cell reluctant roll'd, Bends the dark spring in many a steely fold;
On spiral brass is stretch'd the wiry thong; Tooth urges tooth, and wheel drives wheel along; In diamond-eyes the polish'd axles flow;
Smooth slides the hand, the balance pants below. Round the white circlet, in relievo bold, A serpent twines his scaly length in gold;
And brightly pencill'd on the enamell'd sphere Live the fair trophies of the passing year."
19. Winter: 11. 333-46
" Thus when white Winter o'er the shivering clime Drives the still snow or showers the silver rime, As the lone shepherd o'er the dazzling rocks Prints his steep step and guides his vagrant flocks; Views the green holly veil'd in net-work nice, Her vermil clusters twinkling in the ice; Admires the lucid vales and slumbering floods, Fantastic cataracts and crystal woods, Transparent towns with seas of milk between, And eyes with transport the refulgent scene. If breaks the sunshine o'er the spangled trees, Or flits on tepid wing the western breeze, In liquid dews descends the transient glare,
[^3]And all the glittering pageant melts in air."

Canto Three
20. Slavery: 11. 442-48

E'en now in Afric's groves, with hideous yell
Fierce Slavery stalks, and slips the dogs of hell;
From vale to vale the gathering cries rebound,
444a
And sable nations tremble at the sound! 444b
Ye bands of Senators! whose suffrage sways
Britannia's realms, whom either Ind obeys; Who right the injured and reward the brave, Stretch your strong arm, for ye have power to save!"

Canto Four
21. Life: 11. 127-36
"So, when with light and shade (concordant strife!)
Stern Clotho weaves the chequer'd thread of life, Hour after hour the growing line extends; The cradle and the coffin bound its ends. Soft cords of silk the whirling spoles reveal, If smiling Fortune turn the giddy wheel; But if sweet Love, with baby-fingers, twines And wets with dewy lips the lengthening lines, Skein after skein celestial tints unfold, And all the silken tissue shines with gold."

From: The Temple of Nature/ The Origin of Society [1803]
Canto One: Production of Life
22. Organic Evolution: 11. 223-304
"God the First Cause! In this terrene abode,
Young Nature lisps she is the child of God.
From embryon births her changeful forms improve, Grow as they live, and strengthen as they move.
" Ere Time began, from flaming Chaos hurl'd,

Rose the bright spheres which form the circling world;
Earths from each sun with quick explosions burst,
And second planets issued from the first.
Then, whilst the sea at their coeval birth, Surge over surge, involved the shoreless Earth, Nursed by warm sun-beams in primeval caves, Organic Life began beneath the waves.
" First Heat from chemic dissolution springs, And gives to Matter its eccentric wings; With strong Repulsion parts the exploding mass, Melts into lymph ${ }^{5}$, or kindles into gas. Attraction next (as earth or air subsides) The ponderous atoms from the light divides; Approaching parts ${ }^{6}$ with quick embrace combines, Swells into spheres, and lengthens into lines. Last, as fine goads the gluten-threads excite, Cords grapple cords, and webs with webs unite; And quick Contraction with ethereal flame Lights into life the fibre-woven frame. Hence without parent, by spontaneous birth, Rise the first specks of animated earth; From Nature's womb the plant or insect swims, And buds or breathes, with microscopic limbs.
" In earth, sea, air, around, below, above, Life's subtle woof in Nature's loom is wove; Points glued to points a living line extends, Touch'd by some goad approach the bending ends. Rings join to rings, and irritated tubes
Clasp with young lips the nutrient globes or cubes, And, urged by appetencies new, select, Imbibe, retain, digest, secrete, eject.
In branching cones, the living web expands:
Lymphatic ducts, and convoluted glands.
Aortal tubes propel the nascent blood,
And lengthening veins absorb the refluent flood.
Leaves, lungs, and gills the vital ether breathe, On Earth's green surface, or the waves beneath.
So Life's first powers arrest the winds and floods:
To bones convert them, or to shells, or woods;
Stretch the vast beds of argil ${ }^{7}$, lime, and sand,

[^4]And from diminish'd oceans form the land.
" Next the long nerves unite their silver train, And young Sensation permeates the brain; Through each new sense the keen emotions dart, Flush the young cheek, and swell the throbbing heart. From pain and pleasure quick Volitions rise: Lift the strong arm, or point the inquiring eyes; With Reason's light bewilder'd Man direct, And right and wrong with balance nice detect. Last, in thick swarms Associations spring: Thoughts join to thoughts, to motions motions cling; Whence in long trains of catenation ${ }^{8}$ flow Imagined joy and voluntary woe.
" So, view'd through crystal spheres, in drops saline Quick-shooting salts in chemic forms combine; Or Mucor stems, a vegetative tribe, Spread their fine roots, the tremulous wave imbibe. Next to our wondering eyes the focus brings Self-moving lines and animated rings. First Monas moves: an unconnected point Plays round the drop without a limb or joint; Then Vibrio waves with capillary eels ${ }^{9}$, And Vorticella whirls her living wheels, While insect Proteus sports with changeful form Through the bright tide: a globe, a cube, a worm. Last o'er the field the Mite enormous swims, Swells his red heart, and writhes his giant limbs.
" Organic Life beneath the shoreless waves Was born and nursed in Ocean's pearly caves. First, forms minute, unseen by spheric glass, Move on the mud, or pierce the watery mass. These, as successive generations bloom, New powers acquire, and larger limbs assume; Whence countless groups of vegetation spring, And breathing realms of fin, and feet, and wing."

## Canto Two: Reproduction of Life

[^5]
## 23. Death and Reproduction: 11. 1-20

" How short the span of Life! some hours possess'd, Warm but to cool, and active but to rest! The age-worn fibres goaded to contract, By repetition palsied, cease to act! When Time's cold hands the languid senses seize, Chill the dull nerves, the lingering currents freeze, Organic matter, unreclaim'd by Life, Reverts to elements by chemic strife. Thus heat evolved from some fermenting mass Expands the kindling atoms into gas, Which sinks ere long in cold concentric rings, Condensed on Gravity's descending wings.
" But Reproduction, with ethereal fires, New life rekindles ere the first expires: Calls up renascent Youth ere tottering Age Quits the dull scene, and gives him to the stage; Bids on his cheek the rose of beauty blow, And binds the wreaths of pleasure round his brow; With finer links the vital chain extends, And the long line of Being never ends."

## 24. Adam \& Eve and Sexual Reproduction: 11. 135-76

" So erst in Paradise creation's Lord, As the first leaves of holy writ record, From Adam's rib (who press'd the flowery grove And dreamt delighted of untasted love To cheer and charm his solitary mind) Form'd a new sex, the Mother of Mankind. Buoy'd on light step the Beauty seem'd to swim, And stretch'd alternate every pliant limb; Pleased on Euphrates's velvet margin stood, And view'd her playful image in the flood; Own'd the fine flame of love, as life began, And smiled enchantment on adoring Man. Down her white neck, and o'er her bosom roll'd, Flow'd in sweet negligence her locks of gold; Round her fine form the dim transparence play'd, And show'd the beauties that it seem'd to shade. Enamour'd Adam gazed with fond surprise,

And drank delicious passion from her eyes;
Felt the new thrill of young Desire, and press'd
The graceful Virgin to his glowing breast.
The conscious Fair betrays her soft alarms, Sinks with warm blush into his closing arms, Yields to his fond caress with wanton play
And sweet, reluctant, amorous delay.
" Where no new sex with glands nutritious feeds, Nursed in her womb the solitary breeds ${ }^{10}$; No Mother's care their early steps directs, Warms in her bosom, with her wings protects. The clime unkind, or noxious food, instils To embryon nerves hereditary ills; The feeble births acquired diseases chase, Till Death extinguish the degenerate race.
" So grafted trees with shadowy summits rise, Spread their fair blossoms and perfume the skies; Till canker taints the vegetable blood, Mines round the bark, and feeds upon the wood. So years successive, from perennial roots The wire or bulb with lessen'd vigour shoots;
Till curled leaves, or barren flowers, betray
A waning lineage verging to decay;
Or till, amended by connubial powers, Rise seedling progenies from sexual flowers."

## 25. Floral Sex: 11.263-78

" Hence on green leaves the sexual Pleasures dwell, And Loves and Beauties crowd the blossom's bell: The wakeful Anther in his silken bed O'er the pleased Stigma bows his waxen head; With meeting lips and mingling smiles they sup Ambrosial dewdrops from the nectar'd cup; Or buoy'd in air the plumy Lover springs, And seeks his panting Bride on Hymen-wings.
" The Stamen-males, with appetencies just, Produce a formative prolific dust;

[^6]With apt propensities, the Styles recluse
Secrete a formative prolific juice.
These in the Pericarp erewhile arrive, Rush to each other, and embrace alive.
Form'd by new powers, progressive parts succeed, Join in one whole, and swell into a seed."
26. The Tree of Knowledge: 11. 435-446
" Now at her nod the Nymphs attendant bring Translucent water from the bubbling spring: In crystal cups the waves salubrious shine, Unstain'd, untainted with immodest wine. Next where, emerging from its ancient roots, Its widening boughs the Tree of Knowledge shoots, Pluck'd with nice choice, before the Muse they placed The now no longer interdicted taste.
Awhile they sit, from higher cares released, And, pleased, partake the intellectual feast. Of good and ill they speak, effect and cause, Celestial agencies and Nature's laws."

## Canto Three: Progress of the Mind

27. Progress of the Mind: 11.55-92
" First the new actions of the excited sense, Urged by appulses from without, commence; With these exertions pain, or pleasure, springs, And forms perceptions of external things. Thus, when illumined by the solar beams, Yon waving woods, green lawns, and sparkling streams, In one bright point by rays converging lie Planed on the moving tablet of the eye; The mind obeys the silver goads of light, And Irritation moves the nerves of sight.
" These acts repeated rise from joys or pains, And swell Imagination's flowing trains; So in dread dreams amid the silent night, Grim spectre-forms the shuddering sense affright;
Or Beauty's idol-image, as it moves, Charms the closed eye with graces, smiles, and loves; Each passing form the pausing heart delights,

And young Sensation every nerve excites.
" Oft from Sensation quick Volition springs, When pleasure thrills us, or when anguish stings. Hence Recollection calls with voice sublime Immersed ideas from the wrecks of Time; With potent charm in lucid trains displays Eventful stories of forgotten days. Hence Reason's efforts good with ill contrast, Compare the present, future, and the past, Each passing moment, unobserved, restrain The wild discordancies of Fancy's train, But leave uncheck'd the night's ideal streams ${ }^{11}$, Or, sacred Muses! your meridian dreams.
" And last, Suggestion's mystic power describes Ideal hosts arranged in trains or tribes.
So, when the Nymph with volant finger rings Her dulcet harp and shakes the sounding strings; As with soft voice she trills the enamour'd song, Successive notes, unwill'd, the strain prolong; The transient trains Association steers, And sweet vibrations charm the astonish'd ears."

## 28. Humankind's Faculties: 11. 117-130

" Proud Man alone, in wailing weakness born, No horns protect him, and no plumes adorn;
No finer powers of nostril, ear, or eye, Teach the young reasoner to pursue or fly. Nerved with fine touch above the bestial throngs, The hand, first gift of Heaven! to Man belongs. Untipt with claws the circling fingers close; With rival points the bending thumbs oppose; Trace the nice lines of Form with sense refined, And clear ideas charm the thinking mind; Whence the fine organs of the touch impart Ideal figure, source of every art. Time, motion, number, sunshine or the storm, But mark varieties in Nature's form."

[^7]
## 29. Origin of Humankind's Aesthetic Sense: 11. 163-76

" As the pure language of the sight commands The clear ideas furnish'd by the hands, Beauty's fine forms attract our wondering eyes, And soft alarms the pausing heart surprise. Warm from its cell the tender infant born Feels the cold chill of Life's aerial morn; Seeks with spread hands the bosom's velvet orbs, With closing lips the milky fount absorbs; And, as compress'd the dulcet streams distil, Drinks warmth and fragrance from the living rill; Eyes with mute rapture every waving line; Prints with adoring kiss the Paphian shrine, And learns erelong, the perfect form confess'd, Ideal Beauty from its mother's breast ${ }^{12}$."

## 30. Function of Imitation: 11. 279-92

" Hence when the inquiring hands with contact fine Trace on hard forms the circumscribing line, Which then the language of the rolling eyes From distant scenes of earth and heaven supplies, Those clear ideas of the touch and sight Rouse the quick sense to anguish or delight. Whence the fine power of Imitation springs, And apes the outline of external things; With ceaseless action to the world imparts All moral virtues, languages and arts.
First the charm'd Mind mechanic powers collects: Means for some end, and causes of effects; Then learns from other minds their joys and fears, Contagious smiles and sympathetic tears."

## 31. Function of Reason: 11. 401-410

" Whence Reason's empire o'er the world presides, And man from brute, and man from man, divides; Compares and measures by imagined lines Ellipses, circles, tangents, angles, sines;
${ }^{12}$ Our perception of beauty consists in our recognition by the sense of vision of those objects, first, which have before inspired our love...and, secondly, which bear any analogy of form to such objects.

Repeats with nice libration, and decrees
In what each differs, and in what agrees;
With quick volitions unfatigued selects Means for some end, and causes of effects; All human science worth the name imparts, And builds on Nature's base the works of arts."
32. The Importance of Sympathy: 11. 467-90
" The seraph Sympathy from Heaven descends, And bright o'er Earth his beamy forehead bends: On Man's cold heart celestial ardour flings, And showers affection from his sparkling wings; Rolls o'er the world his mild benignant eye, Hears the lone murmur, drinks the whisper'd sigh; Lifts the closed latch of pale Misfortune's door; Opes the clench'd hand of Avarice to the poor; Unbars the prison, liberates the slave;
Sheds his soft sorrows o'er the untimely grave; Points with uplifted hand to realms above, And charms the world with Universal Love.
" O'er the thrill'd frame his words assuasive steal, And teach the selfish heart what others feel; With sacred Truth each erring thought control, Bind sex to sex, and mingle soul with soul. 'From Heaven,' he cries, 'descends the moral plan, And gives Society to savage man.
High on yon scroll, inscribed o'er Nature's shrine, Live in bright characters the words divine: "In Life's disastrous scenes, to others do What you would wish by others done to you."

Canto Four: Of Good and Evil
33. Scarcity of Sympathy in Nature: 11. 1-10
" How few," the Muse in plaintive accents cries, And mingles with her words pathetic sighs, " How few, alas! in Nature's wide domains The sacred charm of Sympathy restrains! Uncheck'd desires from appetite commence, And pure Reflection yields to selfish sense!

Blest is the sage who, learn'd in Nature's laws, With nice distinction marks effect and cause; Who views the insatiate grave with eye sedate, Nor fears thy voice, inexorable Fate!"

## 34. The World as Slaughter-House: 11. 11-66

" When War, the demon, lifts his banner high, And loud artillery rends the affrighted sky; Swords clash with swords, on horses horses rush, Man tramples man, and nations nations crush; Death his vast scythe with sweep enormous wields, And shuddering Pity quits the sanguine fields.
" The wolf, escorted by his milk-drawn dam, Unknown to mercy, tears the guiltless lamb; The towering eagle, darting from above, Unfeeling rends the inoffensive dove; The lamb and dove on living nature feed, Crop the young herb, or crush the embryon seed. Nor spares the loud owl in her dusky flight, Smit with sweet notes, the minstrel of the night; Nor spares, enamour'd of his radiant form, The hungry nightingale the glowing worm, Who with bright lamp alarms the midnight hour, Climbs the green stem, and slays the sleeping flower.
" Fell oestrus ${ }^{13}$ buries, in her rapid course, Her countless brood in stag, or bull, or horse, Whose hungry larva eats its living way, Hatch'd by the warmth, and issues into day. The wing'd ichneumon for her embryon young Gores with sharp horn the caterpillar throng; The cruel larva mines its silky course, And tears the vitals of its fostering nurse. While fierce libellula ${ }^{14}$ with jaws of steel Ingulfs an insect-province at a meal.
Contending bee-swarms rise on rustling wings, And slay their thousands with envenom'd stings.

[^8][^9]Through the thick ranks of vegetable war: Herb, shrub, and tree, with strong emotions rise For light and air, and battle in the skies; Whose roots diverging with opposing toil Contend below for moisture and for soil. Round the tall elm the flattering ivies bend, And strangle, as they clasp, their struggling friend. Envenom'd dews from Mancinella ${ }^{15}$ flow, And scald with caustic touch the tribes below. Dense shadowy leaves on stems aspiring borne With blight and mildew thin the realms of corn. And insect hordes with restless tooth devour The unfolded bud, and pierce the ravell'd flower.
" In ocean's pearly haunts, the waves beneath, Sits the grim monarch of insatiate Death: The shark rapacious, with descending blow, Darts on the scaly brood that swims below. The crawling crocodiles, beneath that move, Arrest with rising jaw the tribes above. With monstrous gape, sepulchral whales devour Shoals at a gulp, a million in an hour. Air, earth, and ocean, to astonish'd day One scene of blood, one mighty tomb, display! From Hunger's arms the shafts of Death are hurl'd, And one great slaughter-house the warring world!"
35. Pleasures of Life: 11. 135-158
" Hear, O ye Sons of Time!" the Nymph ${ }^{16}$ replies, Quick indignation darting from her eyes, "When in soft tones the Muse lamenting sings, And weighs with tremulous hand the sum of things, She loads the scale in melancholy mood: Presents the evil, but forgets the good. But if the beam some firmer hand suspends, And good and evil load the adverse ends, With strong libration, where the good abides, Quick nods the beam, the ponderous gold subsides.

[^10]" Hear, O ye Sons of Time! the powers of Life Arrest the elements and stay their strife: From wandering atoms, ethers, airs, and gas, By combination form the organic mass; And, as they seize, digest, secrete, dispense The bliss of being to the vital ens.
Hence in bright groups from Irritation rise Young Pleasure's trains, and roll their azure eyes.
" With fond delight we feel the potent charm When Zephyrs cool us, or when sun-beams warm; With fond delight inhale the fragrant flowers, Taste the sweet fruits which bend the blushing bowers; Admire the music of the vernal grove, Or drink the raptures of delirious love."
36. The Freedom of the Press: 11. 273-90
" Ye patriot heroes! in the glorious cause Of Justice, Mercy, Liberty, and Laws, Who call to Virtue's shrine the British youth, And shake the senate with the voice of Truth, Rouse the dull ear, the hoodwink'd eye unbind, And give to energy the public mind.
While rival realms with blood unsated wage Wide-wasting war with fell demoniac rage; In every clime while army army meets, And oceans groan beneath contending fleets, Oh save, oh save, in this eventful hour The tree of knowledge from the axe of Power; With fostering peace the suffering nations bless, And guard the freedom of the immortal Press!
So shall your deathless fame from age to age Survive, recorded in the historic page;
And future bards with voice inspired prolong Your sacred names, immortalized in song."
37. The Cycle of Life: 11. 369-92
" So human progenies, if unrestrain'd, By climate friended and by food sustain'd, O'er seas and soils prolific hordes would spread Erelong, and deluge their terraqueous bed.

But war and pestilence, disease and dearth, Sweep the superfluous myriads from the earth. The while ${ }^{17}$ new forms reviving tribes acquire Each passing moment, as the old expire (Like insects swarming in the noontide bower Rise into being, and exist an hour).
The births and deaths contend with equal strife, And every pore of Nature teems with life, Which buds or breathes from Indus to the Poles, And Earth's vast surface kindles, as it rolls!
" Hence when a monarch or a mushroom dies, Awhile extinct the organic matter lies; But, as a few short hours or years revolve, Alchemic powers the changing mass dissolve. Born to new life unnumber'd insects pant; New buds surround the microscopic plant, Whose embryon senses and unwearied frames Feel finer goads and blush with purer flames.
Renascent Joys from Irritation spring, Stretch the long root, or wave the aurelian wing."
38. The Laws of Life: 11.429-62
" Hear, O ye Sons of Time! your final doom, And read the characters that mark your tomb: The marble mountain and the sparry steep Were built by myriad nations of the deep, Age after age, who form'd their spiral shells, Their sea-fan gardens and their coral cells, Till central fires, with unextinguish'd sway, Raised the primeval islands into day.
The sand-fill'd strata stretch'd from Pole to Pole, Unmeasured beds of clay, and marl, and coal;
Black ore of manganese, the zinky stone, And dusky steel on his magnetic throne, In deep morass, or eminence superb, Rose from the wrecks of animal or herb. These from their elements by life combined, Form'd by digestion, and in glands refined, Gave, by their just excitement of the sense, The bliss of being to the vital ens.

[^11]" Thus the tall mountains that emboss the lands, Huge isles of rock, and continents of sands, Whose dim extent eludes the inquiring sight, are mighty monuments of past delight.
Shout round the globe how Reproduction strives With vanquish'd Death, and Happiness survives; How Life increasing peoples every clime, And young renascent Nature conquers Time; And high in golden characters record The immense munificence of Nature's Lord!
"He gives and guides the Sun's attractive force, And steers the planets in their silver course; With heat and light revives the golden day, And breathes his spirit on organic clay; With hand unseen directs the General Cause By firm immutable immortal laws."

The End of the Extracts


[^0]:    ${ }^{1}$ pure air, an element [JD]; non-material pervasive cosmic entity, Aristotle's 5th Element [ed.]

[^1]:    ${ }^{2}$ white juice of the stomach [JD]

[^2]:    ${ }^{3}$ elastic force [JD]

[^3]:    ${ }^{4}$ twisted length of cotton ready for spinning [ed.]

[^4]:    ${ }^{5}$ a pure transparent fluid [JD]
    ${ }_{7}^{6}$ i.e. particles [ed.]
    ${ }^{7}$ potter's clay [JD]

[^5]:    ${ }^{8}$ regular connection, link [JD]
    ${ }^{9}$ i.e. undulating hairs [ed.]

[^6]:    ${ }^{10}$ These lines describe solitary reproduction in which the species has not yet evolved ('no new sex') the separate and specific organs (e.g. 'glands nutritious') of sexual reproduction. The solitary parent can be viewed as either maternal or paternal. [ed.]

[^7]:    ${ }^{11}$ i.e. flow of images and ideas in dreams [ed.]

[^8]:    " Yes! smiling Flora drives her armed car

[^9]:    13

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    gadfly
    dragonfly
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[^10]:    ${ }^{15}$ Hippomane: 'the dewdrops which fall from it are so caustic as to blister the skin, and produce dangerous ulcers; whence many have found their death by sleeping under its shade.' [ E.D.'s footnote to line 188 in Canto Three of 'The Loves of the Plants']
    ${ }^{16}$ i.e. Urania [ed.]

[^11]:    ${ }^{17}$ i.e. 'meanwhile'. ‘The while' is D. King-Hele's emendation of the original 'Thus while'. [ed.]

