

Time, Tempo, Tense

Aristotle, from *Physics*, IV, 10

The next subject to be discussed is Time. The best plan will be to start by solving the difficulties connected with it, making use of the usual arguments. In the first place, does time belong to the class of things that exist or to that of things that do not exist? In the second place, what is its nature? The following considerations might lead us to suspect that it either does not exist at all or that it hardly exists, and in a way that is unclear. One part of it has been and is no longer, one part is going to be and is not yet. And of such parts is time – both infinite time and any time we may envisage, made up. And it would appear impossible that, being made up of things that do not exist, it could have an essence.

Furthermore, if there exists a divisible thing, all or some of its parts must exist. But of time some parts have been, while others are going to be, but no part is, although time can be split up into parts. For what is 'now' is not a part, since a part can be measured, and a whole must be made up of parts. On the other hand, time does not seem to be made up of 'nows'. Furthermore, it is not easy to see if the 'now', which appears to separate the past from the future, remains always one and the same, or is always different.

If it is always different, and if, in the temporal stretch, none of the parts which are different may exist simultaneously with another (unless one contains the other, as the shorter time is contained by the longer) and if the 'now' that is not, but was before, must have ceased at some time, so the instants, too, cannot be simultaneous, but the one that was before must always have ceased to be. But the prior 'now' cannot have ceased to exist 'in itself', because in that case it would still exist; and yet it cannot have passed into another 'now'. Indeed, instants cannot be thought of as continuous to one another, in the same way as continuity is not possible between points. If, then, it did not pass into another 'now', it would exist simultaneously with the innumerable intermediate 'nows'; but this is impossible. But neither is it possible for the 'now' to remain always the same; in fact, no determinate divisible thing has one sole limit; there is only one limit, whether it is linearly stretched or exists in more than one dimension; but the 'now' is a limit, and it is possible to envisage a determinate time. Furthermore, if coincidence in time, namely, being neither before nor after, means to be in the same time and in the same 'now', if we admit coincidence of what is before and what is after, then things

that happened ten thousand years ago would be simultaneous with things that happen today, and nothing would be before or after anything else.¹

Lucretius, from *De rerum natura*, I, 459-463

Tempus item per se non est, sed rebus ab ipsis
consequitur sensus, transactum quid sit in aevo,
tum quae res instet, quid porro deinde sequatur;
nec per se quemquam tempus sentire fatendumst
semotum ab rerum motu placidaque quiete.

[Time does not exist by itself, but from things themselves it derives the meaning of what happened in the past, of what persists now and what is to follow; and no one can perceive time separated from the movement of things and from quiet stillness.]

Ovid, 'Envoi', from *Metamorphoses*, Book XV, 871-879

Iamque opus exegi, quod nec Iovis ira nec ignis
nec poterit ferrum nec edax abolere vetustas.
cum volet, illa dies, quae nil nisi corporis huius
ius habet, incerti spatium mihi finiat aevi:
parte tamen meliore mei super alta perennis
astra ferar, nomenque erit indelebile nostrum,
quaque patet domitis Romana potentia terris,
ore legar populi, perque omnia saecula fama,
siquid habent veri vatum praesagia, vivam.

[Now the work is done, that neither Jupiter's anger, nor fire nor sword, nor devouring time may erase. Let that day which has only power over my body, end the uncertain space of my time: yet the best part of me will be borne perennial above the stars, and my name will stay indelible, and, wherever the influence of Rome extends over the lands and populations it has conquered, I will be on people's lips and, famous throughout the ages, if the poets' prophecies are true, I shall live.]

¹ Unless otherwise stated, translations are editorial.

Augustine, *The Confessions of Saint Augustine* (c. 400 AD), Book XI, translated by E.B. Pusey (Edward Bouverie)

Lo, are they not full of their old leaven, who say to us, 'What was God doing before He made heaven and earth? For if (say they) He were unemployed and wrought not, why does He not also henceforth, and for ever, as He did heretofore? For did any new motion arise in God, and a new will to make a creature, which He had never before made, how then would that be a true eternity, where there ariseth a will, which was not? For the will of God is not a creature, but before the creature; seeing nothing could be created, unless the will of the Creator had preceded. The will of God then belongeth to His very Substance. And if aught have arisen in God's Substance, which before was not, that Substance cannot be truly called eternal. But if the will of God has been from eternity that the creature should be, why was not the creature also from eternity?'

Who speak thus, do not yet understand Thee, O Wisdom of God, Light of souls, understand not yet how the things be made, which by Thee, and in Thee are made: yet they strive to comprehend things eternal, whilst their heart fluttereth between the motions of things past and to come, and is still unstable. Who shall hold it, and fix it, that it be settled awhile, and awhile catch the glory of that everfixed Eternity, and compare it with the times which are never fixed, and see that it cannot be compared; and that a long time cannot become long, but out of many motions passing by, which cannot be prolonged altogether; but that in the Eternal nothing passeth, but the whole is present; whereas no time is all at once present: and that all time past, is driven on by time to come, and all to come followeth upon the past; and all past and to come, is created, and flows out of that which is ever present? Who shall hold the heart of man, that it may stand still, and see how eternity ever still-standing, neither past nor to come, uttereth the times past and to come? Can my hand do this, or the hand of my mouth by speech bring about a thing so great?

...

But if any excursive brain rove over the images of forepassed times, and wonder that Thou the God Almighty and All-creating and All-supporting, Maker of heaven and earth, didst for innumerable ages forbear from so great a work, before Thou wouldest make it; let him awake and consider, that he wonders at false conceits. For whence could innumerable ages pass by, which Thou madest not, Thou the Author and Creator of all ages? or what times should there be, which were not made by Thee? or how should they pass by, if they never were? Seeing then Thou art the Creator of all times, if any time was before Thou madest heaven and earth, why say they that Thou didst forego working? For that very time didst Thou make, nor could times pass by, before Thou madest those times. But if before heaven and earth there was no time, why is it demanded, what Thou then didst? For there was no 'then', when there was no time.

Nor dost Thou by time, precede time: else shouldest Thou not precede all times. But Thou precedest all things past, by the sublimity of an ever-present eternity; and surpassest all future because they are future, and when they come, they shall be past; but Thou art the Same, and Thy years fail not. Thy years neither come nor go; whereas ours both come and go, that they all may come. Thy years stand together, because they do stand; nor are departing thrust out by coming years, for they pass not away; but ours shall all be, when they shall no more be. Thy years are one day; and Thy day is not daily, but To-day, seeing Thy To-day gives not place unto to-morrow, for neither doth it replace yesterday. Thy To-day, is Eternity; therefore didst Thou beget The Coeternal, to whom Thou saidst, This day have I begotten Thee. Thou hast made all things; and before all times Thou art: neither in any time was time not.

Dante Alighieri, 'Inferno', from *La divina commedia (The Divine Comedy)*, c. 1306-1321, V, 121-123

nessun maggior dolore
che ricordarsi del tempo felice
ne la miseria.

[There is no greater sorrow than to recollect happy time in misery.]

Leon Battista Alberti, from *I libri della famiglia (The Books of Family)*, c. 1440

Giannozzo: Tre cose sono quelle le quale uomo può chiamare sue proprie: ... la fortuna ... il corpo ...
Lionardo: La terza quale sarà?
Giannozzo: Ha! cosa pretiosissima. Non tanto sono mie queste mani et questi occhi.
Lionardo: Maraviglia! Che cosa sia questa?
Giannozzo: Non si può legare, non diminuirla; non in modo alcuno può quella essere non tua, pure che tu la voglia essere tua.
Lionardo: E a mia posta sarà d'altrui?
Giannozzo: E quando vorrai sarà non tua. El tempo, Lionardo mio, el tempo, figliuoli miei.

[*Giannozzo*: There are three things which a man can truly call his own. ... fortune ... the body ...
Lionardo: And what is the third?
Giannozzo: Ha! A most precious thing! My very hands and eyes are not so much my own.]

Lionardo: Amazing! But what thing is this?

Giannozzo: It cannot be bound, it cannot be lessened; in no way can it be made other than your own, if only you want it to be yours.

Lionardo: And can it belong to another if I wish?

Giannozzo: And when you wish it can be not yours. Time, my dear Lionardo, time, my children.]

François Villon, 'La Ballade des Dames du temps jadis' ('The Ballad of the Ladies of Yore'), c. 1460

Dites-moi où, n'en quel pays,
Est Flora la belle Romaine,
Archipiades, ne Thaïs,
Qui fut sa cousine germaine,
Echo, parlant quant bruit on mène
Dessus rivière ou sur étang,
Qui beauté eut trop plus qu'humaine?
Mais où sont les neiges d'antan?

Où est la très sage Héloïs,
Pour qui fut châtré et puis moine
Pierre Esbaillart à Saint-Denis?
Pour son amour eut cette essoine.
Semblablement, où est la roïne
Qui commanda que Buridan
Fût jeté en un sac en Seine ?
Mais où sont les neiges d'antan?

La roïne Blanche comme un lis
Qui chantait à voix de sirène,
Berthe au grand pied, Bietrix, Aliz,
Haramburgis qui tint le Maine,
Et Jeanne, la bonne Lorraine
Qu'Anglais brûlèrent à Rouen ;
Où sont-ils, où, Vierge souveraine?
Mais où sont les neiges d'antan?

Prince, n'enquerrez de semaine
Où elles sont, ni de cet an,
Que ce refrain ne vous remaine:
Mais où sont les neiges d'antan?

'The Ballad of Dead Ladies', translated by Dante Gabriel Rossetti in *Poems*, 1870

TELL me now in what hidden way is
 Lady Flora the lovely Roman?
 Where 's Hipparchia, and where is Thais,
 Neither of them the fairer woman
 Where is Echo, beheld of no man,
 Only heard on river and mere,—
 She whose beauty was more than human?...
 But where are the snows of yester-year?

Where 's Héloïse, the learned nun,
 For whose sake Abeillard, I ween,
 Lost manhood and put priesthood on?
 (From Love he won such dule and teen!)
 And where, I pray you, is the Queen
 Who will'd that Buridan should steer
 Sew'd in a sack's mouth down the Seine?...
 But where are the snows o yester-year?

White Queen Blanche, like a queen of lilies,
 With a voice like any mermaiden,—
 Bertha Broadfoot, Beatrice, Alice,
 And Ermengarde the lady of Maine,—
 And that good Joan whom English-men
 At Rouen doom'd and burn'd her there,—
 Mother of God, where are they then?...
 But where are the snows of yester-year?

Nay, never ask this week, fair lord,
 Where they are gone, nor yet this year,
 Save with thus much for an overword,—
 But where are the snows of yester-year?

Francesco Petrarca, 'La vita fugge, et non s'arresta una hora' ('Life flies and never halts an hour'), from *Canzoniere* (first printed in 1470), CCLXXII

La vita fugge, et non s'arresta una hora,
 et la morte vien dietro a gran giornate,
 et le cose presenti et le passate
 mi danno guerra, et le future anchora;
 e 'l rimembrare et l'aspettar m'accora,

or quinci or quindi, sì che 'n veritate,
 se non ch'ì ò di me stesso pietate,
 ì sarei già di questi penser' fòra.

Tornami avanti, s'alcun dolce mai
 ebbe 'l cor tristo; et poi da l'altra parte
 veggio al mio navigar turbati i vènti;

veggio fortuna in porto, et stanco omai
 il mio nocchier, et rotte arbore et sarte,
 e i lumi bei che mirar soglio, spenti.

[Life flies, and never halts an hour,
 and death comes behind at a swift pace,
 and present and past things
 wage war on me, and future things as well.

and remembrance and expectation grieve me
 on this side and on the other, so that, in truth,
 if I did not pity myself,
 I would already be freed of all these thoughts.

The sweetness that my sad heart knew
 I remember; but, from another side,
 I see my sailing troubled by the winds;

I see no chance of harbour, weary my helmsman,
 broken my masts and ropes,
 and the beautiful stars I was wont to admire, quenched.]

Pierre de Ronsard, 'Je vous envoi un bouquet que ma main' ('I send to you a bouquet which my hand'), from *Continuation des Amours*, 1555

Je vous envoie un bouquet que ma main
 Vient de trier de ces fleurs épanouies;
 Qui ne les eût à ce vèpre cueillies
 Chutes à terre elles fussent demain.

Cela vous soit un exemple certain
 Que vos beautés bien qu'elles soient fleuries
 En peu de temps cherront toutes flétries
 Et comme fleurs périront tout soudain.

Le temps s'en va, le temps s'en va, ma Dame,
 Las! le temps non, mais nous, nous en allons,
 Et tôt serons étendus sous la lame;

Et des amours desquelles nous parlons,
 Quand serons morts, n'en sera plus nouvelle;
 Pour ce, aimez-moi cependant qu'êtes belle.

[I send to you a bouquet which my hand
 Has just selected from those blooming flowers;
 Which, had they not been cut this evening,
 Would have fallen to earth tomorrow.

Let this be to you a clear example
 That your beauty, though now in full blossom,
 In a short while will be withered away
 And like flowers will perish of a sudden.

Time flies away, Time flies away, my Lady
 Alas! time does not go away but we, we do
 And soon we'll be stretched under its blade;

And this love of which we are speaking
 When we are dead will be no longer new;
 And, therefore, love me, even though you are beautiful.]

Pierre de Ronsard, 'Quand vous serez bien vieille' ('When you will be very old'),
 from *Sonnets pour Hélène*, 1578

Quand vous serez bien vieille, au soir à la chandelle,
 Assise auprès du feu, dévidant et filant,
 Direz chantant mes vers, en vous émerveillant :
 'Ronsard me célébrait du temps que j'étais belle.'

Lors vous n'aurez servante oyant telle nouvelle,
 Déjà sous le labeur à demi sommeillant,
 Qui au bruit de Ronsard ne s'aïlle réveillant,
 Bénissant votre nom de louange immortelle.

Je serai sous la terre, et fantôme sans os
 Par les ombres myrteux je prendrai mon repos;
 Vous serez au foyer une vieille accroupie,

Regrettant mon amour et votre fier dédain.
 Vivez, si m'en croyez, n'attendez à demain:
 Cueillez dès aujourd'hui les roses de la vie.

A free paraphrase by William Butler Yeats, 'When You are Old', from *The Rose*, 1893

When you are old and grey and full of sleep,
 And, nodding by the fire, take down this book,
 And slowly read, and dream of the soft look
 Your eyes had once, and of their shadows deep.
 How many loved your moments of glad grace
 And loved your beauty with love false or true,
 But one man loved the pilgrim soul in you,
 And loved the sorrows of your changing face.
 And bending down beside the glowing bars,
 Murmur, a little sadly, how Love fled
 And paced upon the mountain overhead
 And hid his face amid a crowd of stars.

William Shakespeare, sonnet 60 (first printed in 1609)

Like as the waues make towards the pibled shore,
 So do our minuites hasten to their end,
 Each changing place with that which goes before,
 In sequent toile all forwards do contend.
 Natiuity once in the maine of light,
 Crawles to maturity, wherewith being crown'd,
 Crooked eclipses gainst his glory fight,
 And time that gaue, doth now his gift confound.
 Time doth transfixe the florish set on youth,
 And delues the paralels in beauties brow,
 Feedes on the rarities of natures truth,
 And nothing stands but for his sieth to mow.
 And yet to times in hope, my verse shall stand
 Praising thy worth, dispight his cruell hand.

The King James Bible, 1611; Ecclesiastes 3: 1-22

To every thing there is a season, and a time to every purpose under the heaven:
 2 A time to be born, and a time to die; a time to plant, and a time to pluck
 up that which is planted;
 3 A time to kill, and a time to heal; a time to break down, and a time to build up;

- 4 A time to weep, and a time to laugh; a time to mourn, and a time to dance;
 5 A time to cast away stones, and a time to gather stones together; a time to embrace, and a time to refrain from embracing;
 6 A time to get, and a time to lose; a time to keep, and a time to cast away;
 7 A time to rend, and a time to sew; a time to keep silence, and a time to speak;
 8 A time to love, and a time to hate; a time of war, and a time of peace.
 9 What profit hath he that worketh in that wherein he laboureth?
 10 I have seen the travail, which God hath given to the sons of men to be exercised in it.
 11 He hath made every thing beautiful in his time: also he hath set the world in their heart, so that no man can find out the work that God maketh from the beginning to the end.
 12 I know that there is no good in them, but for a man to rejoice, and to do good in his life.
 13 And also that every man should eat and drink, and enjoy the good of all his labour, it is the gift of God.
 14 I know that, whatsoever God doeth, it shall be for ever: nothing can be put to it, nor any thing taken from it: and God doeth it, that men should fear before him.
 15 That which hath been is now; and that which is to be hath already been; and God requireth that which is past.
 16 And moreover I saw under the sun the place of judgment, that wickedness was there; and the place of righteousness, that iniquity was there.
 17 I said in mine heart, God shall judge the righteous and the wicked: for there is a time there for every purpose and for every work.
 18 I said in mine heart concerning the estate of the sons of men, that God might manifest them, and that they might see that they themselves are beasts.
 19 For that which befalleth the sons of men befalleth beasts; even one thing befalleth them: as the one dieth, so dieth the other; yea, they have all one breath; so that a man hath no preeminence above a beast: for all is vanity.
 20 All go unto one place; all are of the dust, and all turn to dust again.
 21 Who knoweth the spirit of man that goeth upward, and the spirit of the beast that goeth downward to the earth?
 22 Wherefore I perceive that there is nothing better, than that a man should rejoice in his own works; for that is his portion: for who shall bring him to see what shall be after him?

Andrew Marvell, 'To His Coy Mistress', 1681

Had we but world enough and time,
 This coyness, lady, were no crime.
 We would sit down, and think which way

To walk, and pass our long love's day.
 Thou by the Indian Ganges' side
 Shouldst rubies find; I by the tide
 Of Humber would complain. I would
 Love you ten years before the flood,
 And you should, if you please, refuse
 Till the conversion of the Jews.

My vegetable love should grow
 Vaster than empires and more slow;
 An hundred years should go to praise
 Thine eyes, and on thy forehead gaze;
 Two hundred to adore each breast,
 But thirty thousand to the rest;
 An age at least to every part,
 And the last age should show your heart.
 For, lady, you deserve this state,
 Nor would I love at lower rate.

But at my back I always hear
 Time's wingèd chariot hurrying near;
 And yonder all before us lie
 Deserts of vast eternity.
 Thy beauty shall no more be found;
 Nor, in thy marble vault, shall sound
 My echoing song; then worms shall try
 That long-preserved virginity,
 And your quaint honour turn to dust,
 And into ashes all my lust;
 The grave's a fine and private place,
 But none, I think, do there embrace.

Now therefore, while the youthful hue
 Sits on thy skin like morning dew,
 And while thy willing soul transpires
 At every pore with instant fires,
 Now let us sport us while we may,
 And now, like amorous birds of prey,
 Rather at once our time devour
 Than languish in his slow-chapped power.
 Let us roll all our strength and all
 Our sweetness up into one ball,
 And tear our pleasures with rough strife
 Through the iron gates of life:
 Thus, though we cannot make our sun
 Stand still, yet we will make him run.

Vincenzo Viviani on Galileo Galilei

Vincenzo Viviani, an important mathematician, became Galileo's assistant in 1639, at the age of 17. He edited the first collected edition of Galileo's works (1655-1656) and acted as his first biographer (1654). In a letter to Prince Leopoldo dei Medici written in 1654, seventeen years after Galileo's death, he recounts that, by observing the oscillation of a chandelier in Pisa cathedral, Galileo noticed that the time the lamp took to swing back and forth was independent of the amplitude of the oscillation, and that he used his pulse beat to measure the time span of the swinging lamp. Galileo wrote about this isochronism in 1602.

Vincenzo Viviani, from *Racconto storico della vita del Sig^r Galileo* (a letter to Prince Leopoldo dei Medici, written in 1654, first printed in 1717)

Around that time [when he was completing his studies in Pisa], with the brilliance of his genius he invented that most simple and regular measure of time that derives from the pendulum, never noticed by anyone before, based on the observation of a chandelier's motion in the cathedral of Pisa; and, testing that motion with the most exact experiments, he verified the equivalence of its oscillations; and then he thought that it could be employed in medical practice for measuring of the pulse rate, to the wonder and delight of the doctors of the time, and as today is commonly practised; and that invention he then applied to various experiments and measurements of times and motions, and he was the first to apply it to the observation of stars, with great advancement of astronomy and geography.

Laurence Sterne, from *The Life and Opinions of Tristram Shandy, Gentleman*, 1759

I am this month one whole year older than I was this time twelve-month; and having got, as you perceive, almost into the middle of the fourth volume – and no farther than to my first day's day – 'tis demonstrative that I have three hundred and sixty-four more days to write just now, than when I first set out; so that instead of advancing, as a common writer, in my work with what I have been doing at it – on the contrary, I am just thrown so many volumes back – was every day of my life to be as busy as this – And why not? – and the transactions and opinions of it to take up as much description – And for what reason should they be cut short? at this rate I should just live 364 times faster than I should write – It must follow, an' please your worships, that the more I write, the more I shall have to write – and consequently, the more your worships read, the more your worships will have to read.

John Keats, 'Ode on a Grecian Urn', 1819

Thou still unravish'd bride of quietness,
 Thou foster-child of silence and slow time,
 Sylvan historian, who canst thus express
 A flowery tale more sweetly than our rhyme:
 What leaf-fring'd legend haunts about thy shape
 Of deities or mortals, or of both,
 In Tempe or the dales of Arcady?
 What men or gods are these? What maidens loth?
 What mad pursuit? What struggle to escape?
 What pipes and timbrels? What wild ecstasy?

Heard melodies are sweet, but those unheard
 Are sweeter; therefore, ye soft pipes, play on;
 Not to the sensual ear, but, more endear'd,
 Pipe to the spirit ditties of no tone:
 Fair youth, beneath the trees, thou canst not leave
 Thy song, nor ever can those trees be bare;
 Bold Lover, never, never canst thou kiss,
 Though winning near the goal yet, do not grieve;
 She cannot fade, though thou hast not thy bliss,
 For ever wilt thou love, and she be fair!

Ah, happy, happy boughs! that cannot shed
 Your leaves, nor ever bid the Spring adieu;
 And, happy melodist, unwearied,
 For ever piping songs for ever new;
 More happy love! more happy, happy love!
 For ever warm and still to be enjoy'd,
 For ever panting, and for ever young;
 All breathing human passion far above,
 That leaves a heart high-sorrowful and cloy'd,
 A burning forehead, and a parching tongue.

Who are these coming to the sacrifice?
 To what green altar, O mysterious priest,
 Lead'st thou that heifer lowing at the skies,
 And all her silken flanks with garlands drest?
 What little town by river or sea shore,
 Or mountain-built with peaceful citadel,
 Is emptied of this folk, this pious morn?

And, little town, thy streets for evermore
 Will silent be; and not a soul to tell
 Why thou art desolate, can e'er return.

O Attic shape! Fair attitude! with brede
 Of marble men and maidens overwrought,
 With forest branches and the trodden weed;
 Thou, silent form, dost tease us out of thought
 As doth eternity: Cold Pastoral!
 When old age shall this generation waste,
 Thou shalt remain, in midst of other woe
 Than ours, a friend to man, to whom thou say'st,
 'Beauty is truth, truth beauty,—that is all
 Ye know on earth, and all ye need to know.'

Charles Baudelaire, 'L'Ennemi' ('The Enemy'), from *Les fleurs du mal*, 1857

Ma jeunesse ne fut qu'un ténébreux orage,
 Traversé çà et là par de brillants soleils;
 Le tonnerre et la pluie ont fait un tel ravage,
 Qu'il reste en mon jardin bien peu de fruits vermeils.

Voilà que j'ai touché l'automne des idées,
 Et qu'il faut employer la pelle et les râdeaux
 Pour rassembler à neuf les terres inondées,
 Où l'eau creuse des trous grands comme des tombeaux.

Et qui sait si les fleurs nouvelles que je rêve
 Trouveront dans ce sol lavé comme une grève
 Le mystique aliment qui ferait leur vigueur?

– Ô douleur! ô douleur! Le Temps mange la vie,
 Et l'obscur Ennemi qui nous ronge le cœur
 Du sang que nous perdons croît et se fortifie!

[My youth was but a dark tempest,
 Crossed, here and there, by the shot of a brilliant sun
 The thunder and the rain have made such a ravage
 That my garden is nearly bare of ripe fruits.

Now I have reached the autumn of ideas,
 And I must toil with spade and rake
 To gather again the flooded soil
 Where the water has dug holes as big as graves.

And who knows if the young flowers that I dream of
 Will find in this ground washed like a strand
 The mystic nourishment that would give them vigour?

Alas! Alas! Time devours our life,
 And the dark Enemy that gnaws our heart
 On the blood we lose will grow and get strength!]

Arthur Rimbaud, 'Le buffet' ('The Cupboard'), composed in 1870

C'est un large buffet sculpté; le chêne sombre,
 Très vieux, a pris cet air si bon des vieilles gens;
 Le buffet est ouvert, et verse dans son ombre
 Comme un flot de vin vieux, des parfums engageants;

Tout plein, c'est un fouillis de vieilles vieilleries,
 De linges odorants et jaunes, de chiffons
 De femmes ou d'enfants, de dentelles flétries,
 De fichus de grand'mère où sont peints des griffons;

- C'est là qu'on trouverait les médaillons, les mèches
 De cheveux blancs ou blonds, les portraits, les fleurs sèches
 Dont le parfum se mêle à des parfums de fruits.

- O buffet du vieux temps, tu sais bien des histoires,
 Et tu voudrais conter tes contes, et tu bruis
 Quand s'ouvrent lentement tes grandes portes noires.

[It is a large carved cupboard of dark oak
 Very old, it has taken on the good aspect of old people;
 The cupboard is open, and its shade gives off,
 Like a stream of old wine, engaging perfumes;

Full, it is a mess of old oldities,
 Of linen perfumed and yellowish, of rags,
 Women's or babies', of withered lace,
 Of grandmas' shawls embroidered with griffons;

- There you will find the medals, the locks
 Of white or blonde hair, the photos, the dry flowers
 Whose scent is mingled with fruits' scents.

- Oh cupboard of old times, you know so many stories,
 And you would like to tell your tales, and you creak
 When your big black doors slowly open.]

Emily Dickinson, from *Complete Poems*, 1890

Part Four: Time and Eternity

XXVII

Because I could not stop for Death,
 He kindly stopped for me;
 The carriage held but just ourselves
 And Immortality.

We slowly drove, he knew no haste,
 And I had put away
 My labor, and my leisure too,
 For his civility.

We passed the school where children played
 At wrestling in a ring;
 We passed the fields of gazing grain,
 We passed the setting sun.
 Or rather – He passed Us –
 The Dews drew quivering and chill –
 For only Gossamer, my Gown –
 My tippet – only Tulle –

We paused before a house that seemed
 A swelling of the ground;
 The roof was scarcely visible,
 The cornice but a mound.

Since then 't is centuries; but each
 Feels shorter than the day
 I first surmised the horses' heads
 Were toward eternity.

Ford Madox Ford, from *The Good Soldier*, 1915

I have, I am aware, told this story in a very rambling way so that it may be difficult for anyone to find their path through what may be a sort of maze. I cannot help it. I have stuck to my idea of being in a country cottage with a silent listener, hearing between the gusts of the wind and amidst the noises of the distant sea, the story as it comes. And, when one discusses an affair –

a long, sad affair – one goes back, one goes forward. One remembers points that one has forgotten, and one explains them all the more minutely since one recognizes that one has forgotten to mention them in their proper places and that one may have given, by omitting them, a false impression. I console myself with thinking that this is a real story and that, after all, real stories are probably told best in the way a person telling a story would tell them. They will then seem most real.

Ferdinand de Saussure, from *Cours de linguistique générale* (*Course in General Linguistics*), 1916

If words were appointed to represent previously established concepts, each of them would have in all languages its exact correspondence as regards their meaning; but this is not the case.

...

Inflection offers particularly striking examples. The distinction of tenses, which is familiar to us, is alien to certain languages; Hebrew does not even know the fundamental distinction between past, present and future. Early German does not have a distinct form for the future; when one says that it expresses the future by the present, one affirms something that is inaccurate, for the value of the present tense is not the same in Early German as the one it has in those languages which possess a future tense in addition to a present. Slavic languages regularly distinguish between two aspects of the verb: the ‘fectif’ represents action in its entirety, as a point within a whole flux; the imperfect shows the action in its development, situated on the temporal line. These categories are difficult to understand for the French, because their language ignores them: if they had been predetermined, they would have been understood. In all these cases, we therefore discover, instead of preconstituted *ideas*, the *values* emerging from the system. When we say that they correspond to concepts, we imply that these are purely differential, defined not positively by their content, but negatively by their relationship with the other elements of the system. Thus, their most exact characteristic is that of being what the others are not.

Henri Bergson, from *Durée et simultanéité* (*Duration and simultaneity*), 1922

If I draw my finger across a sheet of paper without looking at it, the movement I perform, perceived from within, is a continuity of consciousness, something of my own flow, indeed, duration. If now I open my eyes, I see that my finger is tracing on the sheet of paper a line that is preserved, where all is juxtaposition and no longer succession; this is the unfolded, which is the record of the result

of movement, and which will also be its symbol. Now, this line is divisible, it is measurable. In dividing and measuring it, I can therefore say, if it suits me, that I am dividing and measuring the duration of the movement that is tracing it.

James Joyce, from *Ulysses*, 1922

Fabled by the daughters of memory. And yet it was in some way if not as memory fabled it. A phrase, then, of impatience, thud of Blake's wings of excess. I hear the ruin of all space, shattered glass and toppling masonry, and time one livid final flame. What's left us then?

Stephen closed his eyes to hear his boots crush crackling wrack and shells. You are walking through it howsoever. I am, a stride at a time. A very short space of time through very short times of space. Five, six: the *nacheinander*. Exactly: and that is the ineluctable modality of the audible. Open your eyes. No. Jesus! If I fell over a cliff that beetles o'er his base, fell through the *nebeneinander* ineluctably! I am getting on nicely in the dark. My ash sword hangs at my side. Tap with it: they do. My two feet in his boots are at the ends of his legs, *nebeneinander*. Sounds solid: made by the mallet of *Los Demiurgos*. Am I walking into eternity along Sandymount strand? Crush, crack, crick, crick. Wild sea money.

Thomas Mann, from *Der Zauberberg* (*The Magic Mountain*), 1924, translated by H.T. Lower-Porter

Space, like time, engenders forgetfulness; but it does so by setting us bodily free from our surroundings and giving us back our primitive, unattached state ...

Time, we say, is Lethe; but change of air is a similar draught, and, if it works less thoroughly, does so more quickly.

The diaries of opium-eaters record how, during the brief period of ecstasy, the drugged person's dreams have a temporal scope of ten, thirty, sometimes sixty years or even surpass all limits of man's ability to experience time – dreams, that is, whose imaginary time span vastly exceeds their actual duration and which are characterized by an incredible diminishment of the experience of time, with images thronging past so swiftly that, as one hashish-smoke puts it, the intoxicated user's brain seems to have something removed, like the mainspring from a broken watch.

No, not of course at all – it is really all hocus-pocus. The days lengthen in the winter-time, and when the longest comes, the twenty-first of June, the beginning of summer, they begin to go downhill again, toward winter. You

call that ‘of course’; but if one once loses hold of the fact that it is of course, it is quite frightening, you feel like hanging on to something. It seems like a practical joke – that spring begins at the beginning of winter, and autumn at the beginning of summer. You feel you’re being fooled, led about in a circle, with your eye fixed on something that turns out to be a moving point. A moving point in a circle. For the circle consists of nothing but such transitional points without any extent whatever; the curvature is incommensurable, there is no duration of motion, and eternity turns out to be not ‘straight ahead’ but ‘merry-go-round’!

Marcel Proust, ‘À la recherche du temps perdu’, from *Le temps retrouvé* (‘Remembrance of Things Past’, *Time Regained*, translated by Stephen Hudson [Sydney Schiff]), Tome VII, 1927

I had a feeling of intense fatigue when I realised that all this span of time had not only been lived, thought, secreted by me uninterruptedly, that it was my life, that it was myself, but more still because I had at every moment to keep it attached to myself, that it bore me up, that I was poised on its dizzy summit, that I could not move without taking it with me.

The day on which I heard the distant, far-away sound of the bell in the Combray garden was a land-mark in that enormous dimension which I did not know I possessed. I was giddy at seeing so many years below and in me as though I were leagues high.

I now understood why the Duc de Guermantes, whom I admired when he was seated because he had aged so little although he had so many more years under him than I, had tottered when he got up and wanted to stand erect – like those old Archbishops surrounded by acolytes, whose only solid part is their metal cross – and had moved, trembling like a leaf on the hardly approachable summit of his eighty-three years, as though men were perched upon living stilts which keep on growing, reaching the height of church-towers, until walking becomes difficult and dangerous and, at last, they fall. I was terrified that my own were already so high beneath me and I did not think I was strong enough to retain for long a past that went back so far and that I bore within me so painfully. If at least, time enough were allotted to me to accomplish my work, I would not fail to mark it with the seal of Time, the idea of which imposed itself upon me with so much force to-day, and I would therein describe men, if need be, as monsters occupying a place in Time infinitely more important than the restricted one reserved for them in space, a place, on the contrary, prolonged immeasurably since, simultaneously touching widely separated years and the distant periods they have lived through – between which so many days have ranged themselves – they stand like giants immersed in Time.

T.S. Eliot, from 'Burnt Norton', *The Four Quartets*, 1943

Time present and time past
 Are both perhaps present in time future
 And time future contained in time past.
 If all time is eternally present
 All time is unredeemable.
 What might have been is an abstraction
 Remaining a perpetual possibility
 Only in a world of speculation.
 What might have been and what has been
 Point to one end, which is always present.
 Footfalls echo in the memory
 Down the passage which we did not take
 Towards the door we never opened
 Into the rose-garden. My words echo
 Thus, in your mind.
But to what purpose
 Disturbing the dust on a bowl of rose-leaves
 I do not know.

Jorge Luis Borges, from 'Nueva refutación del tiempo' ('A new refutation of time'), in *Otras inquisiciones*, 1952

Let us consider a life throughout whose course repetitions abound: mine, for instance. I never pass before the Recoleta without recalling that my father, my grandparents and my great-grandparents are buried there, just as I myself will be; then I recall having recalled the same thing innumerable times; I cannot walk through the suburbs in the loneliness of the night without recalling that the night pleases us because it suppresses useless details as our memory does; I cannot lament the loss of a love or of a friendship without musing on the fact that you lose only what you have not really had; every time I cross one of the street corners in the southern part of the city I think of you, Helena; every time the wind brings a scent of eucalyptus, I think of Androgué, when I was a child; every time I recall fragment 91 from Heraclitus: you will never go two times down the same river, I admire his dialectical skill, because the ease with which we accept the first thought ('the river is different') clandestinely imposes the second ('I am different'), and allows us the illusion that we invented it; every time I hear a Germanophile vituperate Yiddish, I reflect on the fact that Yiddish is, in the first place, a German dialect, scarcely coloured by the Holy Spirit. These tautologies (and others I do not mention) make up my whole life. Naturally,

they are not repeated in the same way; there are differences of emphasis, of temperature, of light, of general physiological condition. I suspect, however, that the number of variations is not infinite: we may postulate, in the mind of an individual (or of two individuals who do not know each other, but in whose minds the same process operates), two identical moments. Once we postulate this sameness, we may ask: are not these identical moments the same moments? Is not *only one repeated moment* enough to throw the time sequence off balance? Are not those enthusiasts who devote themselves to Shakespeare become, literally, Shakespeare?

...

Time is the substance I am made of. Time is a river which sweeps me away, but I am the river; it is a tiger which destroys me, but I am the tiger; it is a fire which consumes me, but I am the fire.

John Cage, 4'33", 1952

On February 28, 1948, in a speech he gave at the Vassar College, Poughkeepsie, NY, John Cage spoke for the first time of what would become his most famous composition. He said that he meant to compose a piece of three or four minutes of uninterrupted silence, that would be entitled 'Silent Prayer'.

4'33" was composed in 1952. It was represented as an empty score divided into three movements, composed, as the score said, for any musical instrument or any ensemble, in which the only direction for the performers is 'tacet'. The sound is deleted and the music is produced by the noises of the surrounding ambient, those, either voluntary or involuntary, made by the performer, or by the audience.

The original version of the score was composed in 1950, when Cage was teaching at the Black Mountain College, and its first performer was pianist David Tudor at Woodstock, NY, on August 29, 1952.

The score of 4'33" occupies two facing pages of a Folio folder. On the left hand face is the author's hand-written brief introduction:

NOTE: THE TITLE OF THIS WORK IS THE TOTAL LENGTH IN MINUTES AND SECONDS OF ITS PERFORMANCE. AT WOODSTOCK, N.Y., AUGUST 29, 1952, THE TITLE WAS 4'33" AND THE THREE PARTS WERE 33", 2'40", AND 1'20". IT WAS PERFORMED BY DAVID TUDOR, PIANIST, WHO INDICATED THE BEGINNING OF PARTS BY CLOSING, THE ENDING BY OPENING, THE KEYBOARD LID. AFTER THE WOODSTOCK PERFORMANCE, A COPY IN PROPORTIONAL NOTATIONS WAS MADE FOR IRWIN KREMEN. IN IT THE TIME LENGTHS OF THE MOVEMENTS WERE 3", 2'23", AND 1'40". HOWEVER, THE WORK MAY BE PERFORMED BY ANY INSTRUMENTALIST(S) AND THE MOVEMENTS ANY LENGTHS OF TIME.

FOR IRWIN KREMEN

The right-hand page, again hand-written, simply reads:

I

TACET

II

TACET

III

TACET

Albert Einstein, from *Relativity*, 1952

Since there exist in this four dimensional structure [space-time] no longer any sections which represent 'now' objectively, the concepts of happening and becoming are indeed not completely suspended, but yet complicated. It appears therefore more natural to think of physical reality as a four dimensional existence, instead of, as hitherto, the evolution of a three dimensional existence.

Fernand Braudel, from 'Histoire et sciences sociales: la longue durée' ('History and social sciences: The long duration'), in *Annales. Economies, Sociétés, Civilisations* 13, 4, 1958

All historical work decomposes the past, chooses among chronological realities, according to more or less conscious preferences and exclusivities. Traditional history, paying attention to short time, to individuals, to the event made us, a long time ago, accustomed to its hurried, dramatic, short-of-breath time.

The new economic and social history foregrounds the oscillation of cycles, and aims at its duration: it deals with the appearance, and indeed the reality of the rising and falling of prices. There is also today, next to narration (or traditional 'recitative'), a recitative of the conjuncture which considers the past over large time spans of ten, twenty or fifty years.

Much beyond this second recitative, an even more ample kind of history – one dealing with centuries – is located: history of long, even very long, duration. The formula, either good or bad, has become familiar to me to describe what François Simiand, one of the first after Paul Lacombe, would have called

histoire événementielle. But these formulas are not important; in any case, it is from one to the other, from one focal point to the other in time, from what is instantaneous to what is of long duration, that our argument is going to develop.

These words, however, are not absolutely certain; and so is the word 'event'. On my part, I would confine it to a corner, imprison it in the short duration: the event is explosive, 'nouvelle sonnante', as they put it in the sixteenth century. It fills up the conscience of our contemporaries with its abusive smoke, but it does not last, its flame is scarcely seen. Philosophers would no doubt tell us that this means to empty the word of a great part of its meaning. An event, strictly speaking, can be charged with a number of meanings and supports; sometimes it bears witness to deep movements and, by the contrived or genuine play of 'causes' and 'effects', endeared by the historians of the past, it appropriates a time longer than its duration. Endlessly extendible, it connects itself, either freely or not, to a whole series of events, of underlying realities which cannot be separated the one from the other.

Gerard Genette, from 'Discours du récit' ('Narrative Discourse'), *Figures III*, 1972

Order

Time of narration?

'Narration is a doubly temporal sequence ... : there is the time of the thing narrated and the time of the narration (the time of the signified and the time of the signifier). This duality not only renders possible all the temporal distortions that are easily encountered in narratives (three years of the hero's life summed up in two sentences of a novel or in a few sequence shots of a "frequentative" montage in film, etc.). More basically, it invites us to consider that one of the functions of narrative is to extrapolate one time scheme from another time scheme'.²

The temporal duality so strongly emphasized here, and referred to by German theoreticians as the opposition between *erzählte Zeit* (time of the story) and *Erzählzeit* (time of narration), is a typical characteristic not only of cinematic narrative but also of oral narrative, at all levels of aesthetic elaboration, including the fully 'literary' level of epic recitation or dramatic narration (Theramene's narration ...). It is less relevant, perhaps, in other forms of narrative expression, such as the *roman-photo* or the comic strip (or a pictorial strip, like the predella of Urbino, or an embroidered strip, like Queen Matilda's 'tapestry'), which, while building up sequences of images and thus requiring a successive or diachronic reading, also lend themselves to, and even invite, a kind of global and synchronic look – or, at least, a look

² Christian Metz, *Essais sur la signification au cinéma*, Paris, Klincksieck, 1968, 27.

whose direction is no longer determined by the sequence of images. Written literary narration is, in this respect, even more difficult to envisage.

...

Anachronies

To study the temporal order of a story means to compare the order in which events or temporal segments are arranged in the narrative discourse with the order of succession these same events or temporal segments have in the story, if the story order is explicitly indicated by the narration itself, or can be inferred from one or another indirect clue. Obviously this reconstruction is not always possible, and it becomes useless for certain extreme cases like the novels of Robbe-Grillet, where temporal reference is deliberately disrupted. It is just as obvious that in the classical narrative, on the contrary, reconstruction is more often not only possible, because in those texts narrative discourse never inverts the order of events without saying so, but it is also necessary, and precisely for the same reason: when a narrative segment begins with an indication like 'Three months earlier, etc.' we must take into account at the same time the fact that this scene comes *after* in the narration, and that it is supposed to have happened *before* in the story: each of these, or rather the relationship between them (of contrast or of discord), is fundamental to the narrative text, and to suppress this relationship by eliminating one of its members is not only not sticking to the text, but is quite simply killing it.

Jacques Le Goff, from *Storia e memoria (History and Memory)*, 1977

The basic substance of history is time; chronology, therefore, has for a long time performed an essential role as a leitmotiv and an auxiliary science for history. The main instrument of chronology is the calendar, which far surpasses the historian's scope, since it is primarily the fundamental temporal frame of a society's functioning. The calendar reveals the effort performed by human societies to control natural time, exploit the natural course of the Moon or the Sun, the seasons' cycle, the succession of day and night. But its most efficacious subdivisions – the hour and the week – belong to

culture, not nature. The calendar is the product and the expression of history: it is linked to the mythical and religious origins of humanity (festivities), to technological and scientific progress (time measuring), to economic evolution (time for work and time for leisure). It manifests the effort of human societies to transform the cyclical time of nature and of myth, of the eternal return into a linear time divided by groups of years: lustre, Olympiad, century, era, etc.

In our time, when data from philosophy, science, individual and collective experience have become relevant to historical research, there

is a tendency to introduce, along with these measurable frameworks of historical time, such notions as duration, lived time, multiple and relative times, and subjective or symbolic times. So, historical time recovers, at a very sophisticated level, the old time of *memory*, which crosses over history and nourishes it.

Paul Ricoeur, from 'Le retour de l'événement' ('The return of the event'), 1992

I would like to say, in conclusion, that this return of the event should not surprise the philosopher who will venture to affirm that historiography does not have exclusive rights on the event; and this is for a fundamental reason: the historian is himself the *agent-patient* of history, in the sense of all that happens to humans and all that humans make happen. In a sense, historiography, rebuilt and narrated by historians, is a part of the actual history which we all build up, which we all withstand, of which we are responsible without completely being its authors. From the point of view of the actual history which concerns all humans, and not only historians, the event happens within the very composition of historical time, where the memory of what has been, the expectation of what is going to be, and the present appearance of what we do and suffer as agents and patients of history are combined. If, in conclusion, the event is unconquerable in the domain of historiography, it is in the first place because it is unconquerable in the domain of the actual history which we, all together, carry on and suffer. By the same token that, for individual conscience, it is in the living present that memory of the past and expectation of the future are retrieved, at the higher level of history it is in the event of the present that what Reinhart Kosellek, in *Vergangene Zukunft*, calls 'the space of experience' – that is, the concern for the future, which provides a directionality to the present itself. I would like to repeat Kosellek's words: 'The space of experience is never sufficient to determine the horizon of expectation'. This is why the event which *appears* combines the two major meanings of the word history: series of events which are going to happen and narration of events by those who, not having lived it, reconstruct it.

Umberto Eco, from *Sei passeggiate nei boschi narrativi* (*Six Walks in the Fictional Woods*), 1994

Many descriptions of objects, characters or landscapes are part of the strategy of narrative delay. The question is, what does the story benefit from them. In an old book of mine on Ian Fleming's James Bond novels, I remarked that in such stories the author presents long descriptions of a golf match, a

car ride, or of a girl's meditations on the sailor that appears on the pack of Player's cigarettes, or of the slow progress of an insect, while he gets rid of the most dramatic events, like an attack to Fort Knox, or the fight with a shark, in a few pages, and sometimes in a few lines. I then concluded that the only purpose of these long descriptions is that of convincing readers that they are reading a work of art, because it is thought that the difference between 'high' and 'low' literature is that the first has a lot of descriptions, while the second 'cuts to the chase' ... Fleming slows down when dealing with the superfluous and speeds up when dealing with the essential because slowing down with the superfluous performs the erotic function of *delectatio morosa*, and because he knows that the stories narrated in a concise way are the most dramatic.

Stephen Hawking, from *A Brief History of Time: From the Big Bang to Black Holes* (updated and expanded tenth anniversary edition, 1996)

The increase of disorder or entropy is what distinguishes the past from the future, giving a direction to time.

If time travel is possible, where are the tourists from the future?

Only time (whatever that may be) will tell.