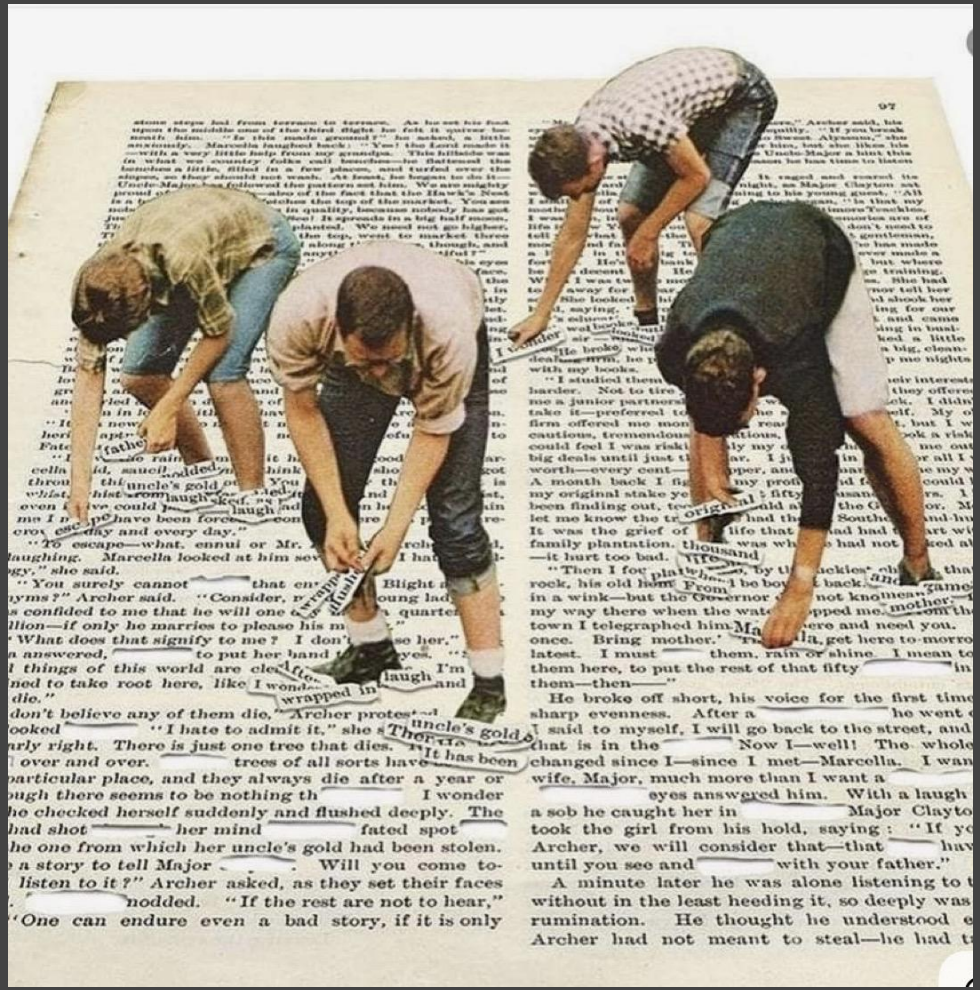
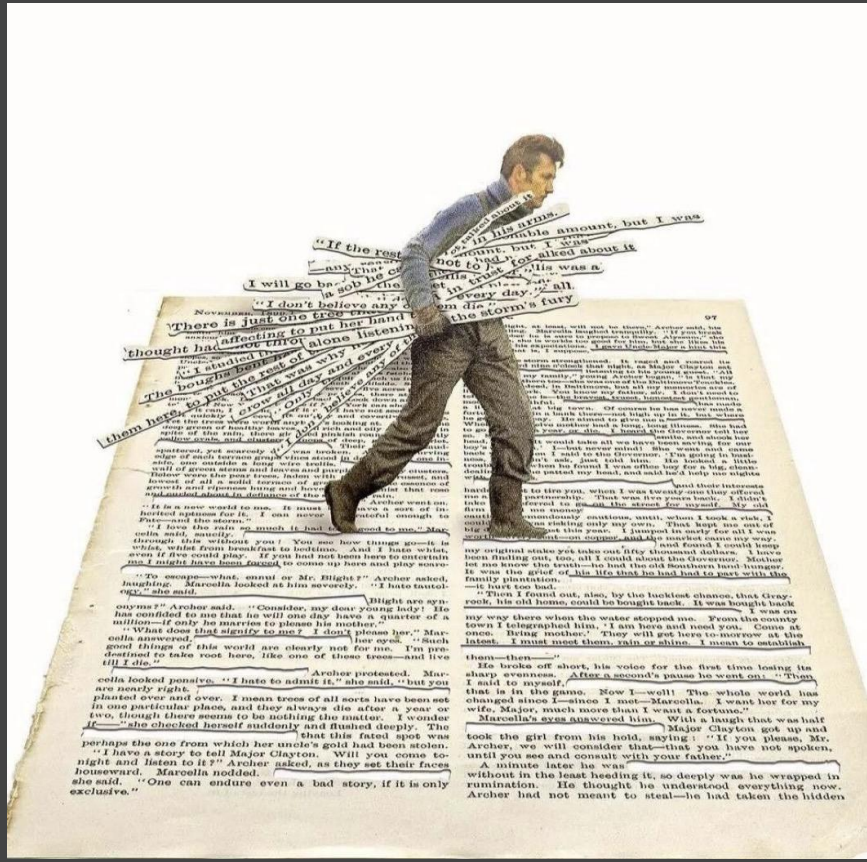
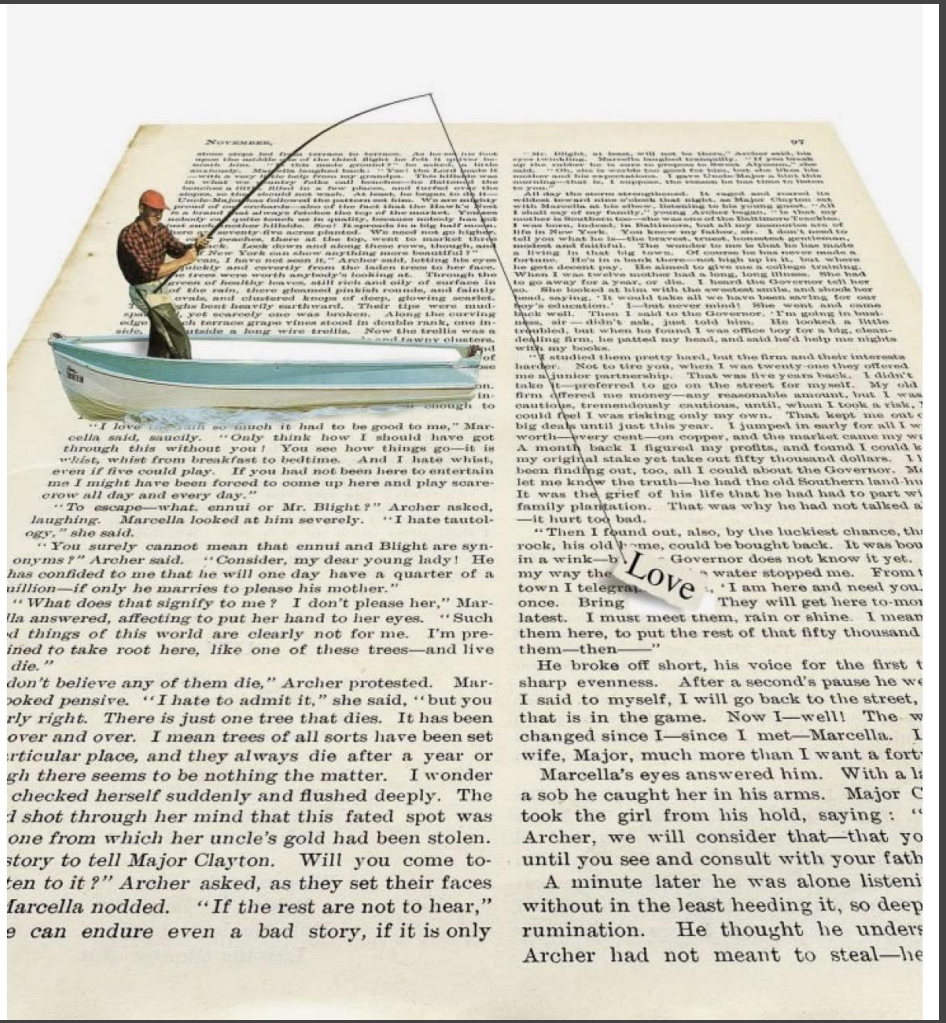
or disadvantage of the soil upon which it is built. Generally speaking, a house should never stand low: it often happens that a house standing on high ground, although built on clay soil, is drier than a low-lying dwelling situated in a valley upon gravel soil. Trees are desirable, if not too near the house, as they aid in drying the soil, certain trees such as eucalyptus, plane, and poplar b... specially useful.

What is ... "made-up ground" is about the ... which a house can be built. Th... is true in its actual sense, fo... of holes and hollows ... filled up with all sorts ... a founda-tion. A slop... soil, which will in... composed of organic ma... gases emanate and ford... obvious. Careful inquiry s... white ..., that was ...made in regard to this impo... tion of soil before selecting a dwelling.

Construction.—The absence of damp will also depend to a great extent upon the construction of the house, proper construction tending to minimise many of the disadvantages of an unsuitable soil. Houses built on clay soil should







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stone steps led from terrace to terrace. As he set his foot upon the middle one of the third flight he felt it quiver beneath him. "Is this made ground?" he asked, in little amazement. Marcella laughed back. "Yes! the Lord made it with a very little help from my grandpa. The hillside was in what we fancy folks call beauties—in flatness the first settlers found it. Grandpa's plan was the prettiest, I suppose, so they should not work. At least, he began to do it—Uncle Madison followed the pattern set him. We are mighty proud of our orchards—also of the fact that the Hawk's Fork is a brand that always fetches the top of the market. Yonders nobody's quite touch us in quality, but nobody has got just such another hillside. See! It spreads in a big half moon. There are twenty-five acres planted. We need not go higher; for peaches, there at the top, went to market three weeks ago. Look down and along these rows, though, and tell me if New York can show anything more beautiful?"

"Indeed, I have not seen it," Archer said, letting his eyes quickly and covertly from the laden trees to her face. The trees were worth anybody's looking at. Through the screen of healthy leaves, still rich and oily of surface in spite of the rain, there gleamed pinkish rounds, and faintly ovals, and clustered knops of deep, glowing scarlet. Quite hastily earthward. Their lips were mad- yet scarcely one was broken. Along the curving edges of each terrace grape vines stood in double rank, one inside, the other outside a long wire trellis. Now the trellis was and tawny clusters.

"I love [illegible] so much it had to be good to me," Marcella said, saucily. "Only think how I should have got through this without you! You see how things go—it is whist, whist from breakfast to bedtime. And I hate whist, even if five could play. If you had not been here to entertain me I might have been forced to come up here and play scarecrow all day and every day."

"To escape—what, ennui or Mr. Blight?" Archer asked, laughing. Marcella looked at him severely. "I hate tautology," she said.

"You surely cannot mean that ennui and Blight are synonyms?" Archer said. "Consider, my dear young lady! He has confided to me that he will one day have a quarter of a million—if only he marries to please his mother."

"What does that signify to me? I don't please her," Marcella answered, affecting to put her hand to her eyes. "Such things of this world are clearly not for me. I'm predined to take root here, like one of these trees—and live die."

don't believe any of them die," Archer protested. Marooked pensive. "I hate to admit it," she said, "but you rly right. There is just one tree that dies. It has been over and over. I mean trees of all sorts have been set rticular place, and they always die after a year or gh there seems to be nothing the matter. I wonder checked herself suddenly and flushed deeply. The shot through her mind that this fated spot was one from which her uncle's gold had been stolen. story to tell Major Clayton. Will you come toten to it?" Archer asked, as they set their faces Marcella nodded. "If the rest are not to hear," e can endure even a bad story, if it is only

"Mr. Blight, as usual, will not be there," Archer said, his eyes twinkling. Marcella laughed tranquilly. "If you break up the cabin he is sure to propose to Bessie Alquinne," she said. "Oh, she is worth too good for him, but she likes his mother and his expectations. I gave Uncle Major a hint this morning—that is, I suppose, the reason he has time to listen to you."

All day the storm strengthened. It raged and roared in without toward nine o'clock that night, as Major Clayton sat with Marcella at his elbow, listening to his young guest. "Ah I shall say of my family," young Archer began, "is that my mother at Smithsons—she was one of the Baltimore Crokhes. I was born, indeed, in Baltimore, but all my memories are of life in New York. You know my father, sir. I don't need to tell you what he is—the bravest, truest, honestest gentleman, friend and faithful. The wonder is that he has made a living in that big town. Of course he has never made a fortune. He's in a bank there—not high up in it, but where he gets decent pay. He aimed to give me a college training. When I was twelve mother had a long, long illness. She had to go away for a year, or die. I heard the Governor tell her so. She looked at him with the sweetest smile, and shook her head, saying, 'It would take all we have been saving for our boy's education.' I—but never mind! She went and came back well. Then I said to the Governor, 'I'm going in business, sir—didn't ask, just told him. He looked a little troubled, but when he found I was office boy for a big, clean-dealing firm, he patted my head, and said he'd help me nights with my books.

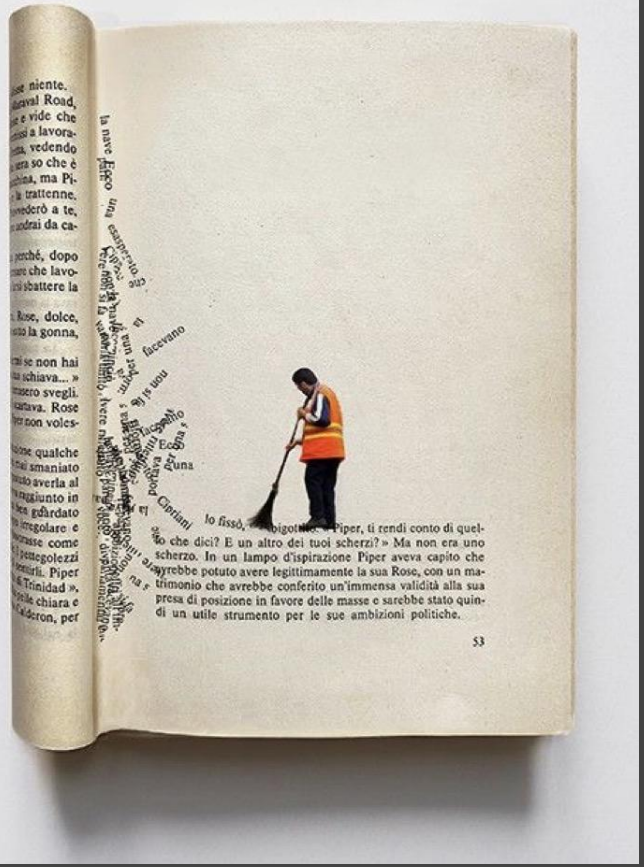
"I studied them pretty hard, but the firm and their interests harder. Not to tire you, when I was twenty-one they offered me a junior partnership. That was five years back. I didn't take it—preferred to go on the street for myself. My old firm offered me money—any reasonable amount, but I was cautious, tremendously cautious, until, when I took a risk, I could feel I was risking only my own. That kept me out of big deals until just this year. I jumped in early for all I was worth—every cent—on copper, and the market came my way. A month back I figured my profits, and found I could say on original stake yet take out fifty thousand dollars. I been finding out, too, all I could about the Governor. M let me know the truth—he had the old Southern land-hu It was the grief of his life that he had had to part wi family plantation. That was why he had not talked a —it hurt too bad.

"Then I found out, also, by the luckiest chance, th rock, his old home, could be bought back. It was bou in a wink—b[illegible] Governor does not know it yet. my way the[illegible] water stopped me. From t town I telegra[illegible] 'I am here and need you. once. Bring [illegible] They will get here to-mo latest. I must meet them, rain or shine. I mean them here, to put the rest of that fifty thousand them—then——"

He broke off short, his voice for the first t sharp evenness. After a second's pause he we I said to myself, I will go back to the street, that is in the game. Now I—well! The w changed since I—since I met—Marcella. I wife, Major, much more than I want a fort

Marcella's eyes answered him. With a l a sob he caught her in his arms. Major C took the girl from his hold, saying: " Archer, we will consider that—that yo until you see and consult with your fath

A minute later he was alone listeni without in the least heeding it, so deep rumination. He thought he unders Archer had not meant to steal—he



lo fissò, [illegible] Piper, ti rendi conto di quel- [illegible] che dici? È un altro dei tuoi scherzi? » Ma non era uno scherzo. In un lampo d'ispirazione Piper aveva capito che avrebbe potuto avere legittimamente la sua Rose, con un matrimonio che avrebbe conferito un'immensa validità alla sua presa di posizione in favore delle masse e sarebbe stato quindi un utile strumento per le sue ambizioni politiche.

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Il mezzelfo si guardò intorno per assicurarsi che stessero tutti bene. Sturm aveva posato la borsa contenente i dischi e stava seduto contro un muro. Raistlin giaceva su una panca, con gli occhi chiusi e il respiro rapido e affannoso. Caramon naturalmente lo vegliava, seduto accanto a lui. Tasslehoff sedeva in fondo al piedistallo, mentre Flint era appoggiato ai portali, troppo stanco per brontolare. riesce a capire, per una volta dai retta al tuo

«Dov'è Riverwind?» domandò Tanis. Caramon e Sturm si scambiarono uno sguardo, poi abbassarono gli occhi. La rabbia ebbe la meglio sul dolore: Tanis si rialzò in piedi. Sturm si alzò e lo fermò. a quella si guardò intorno per assicurarsi che stessero

«Così ha deciso, Tanis. È costume del suo popolo, e anche del mio.» wind! Tanis spinse da parte il nano ed aprì i grandi port

Tanis fece scostare il guerriero con uno spintone e raggiunse il doppio portale. Flint non si mosse infelice, mezzo uomo e mezzo

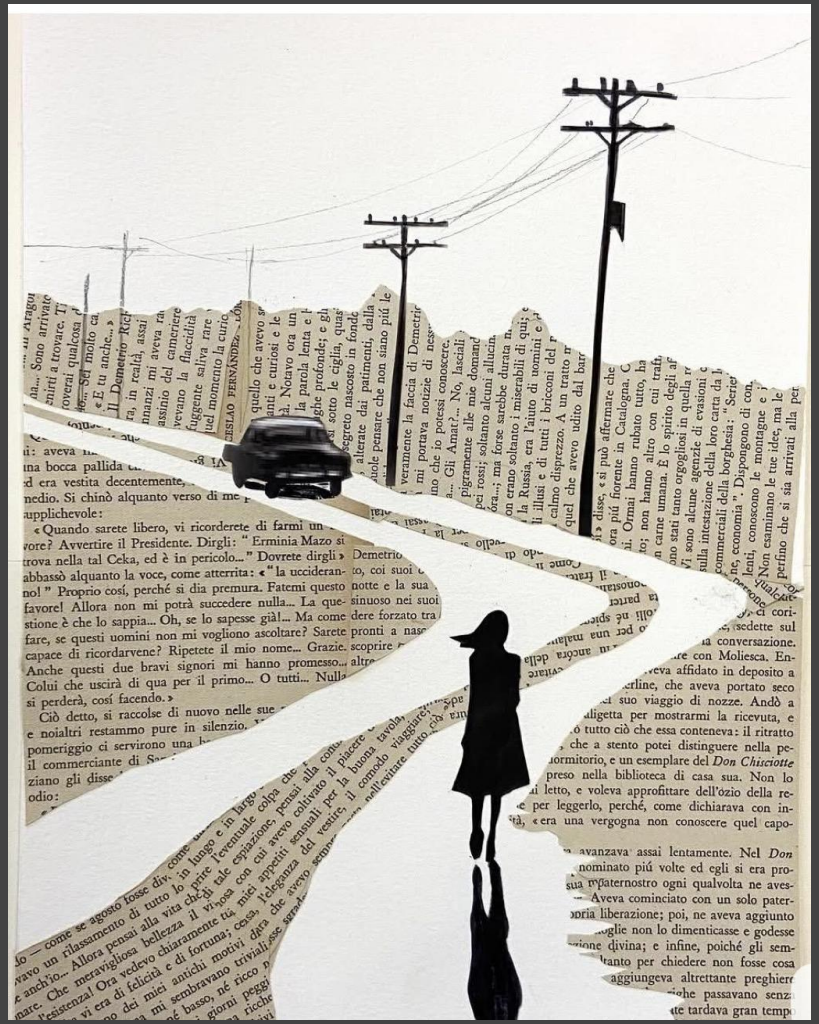
«Lasciami passare,» disse il mezzelfo con la voce tremante. La dura espressione di Flint era addolcita solo dalle rughe che il dolore e il rimpianto gli avevano scavato nel viso nel corso di cento anni. Tanis lesse nei suoi occhi quel tesoro di saggezza che aveva fatto sì che un ragazzo infelice, mezzo uomo e mezzo elfo, stringesse una strana e durevole amicizia con un nano.avevano

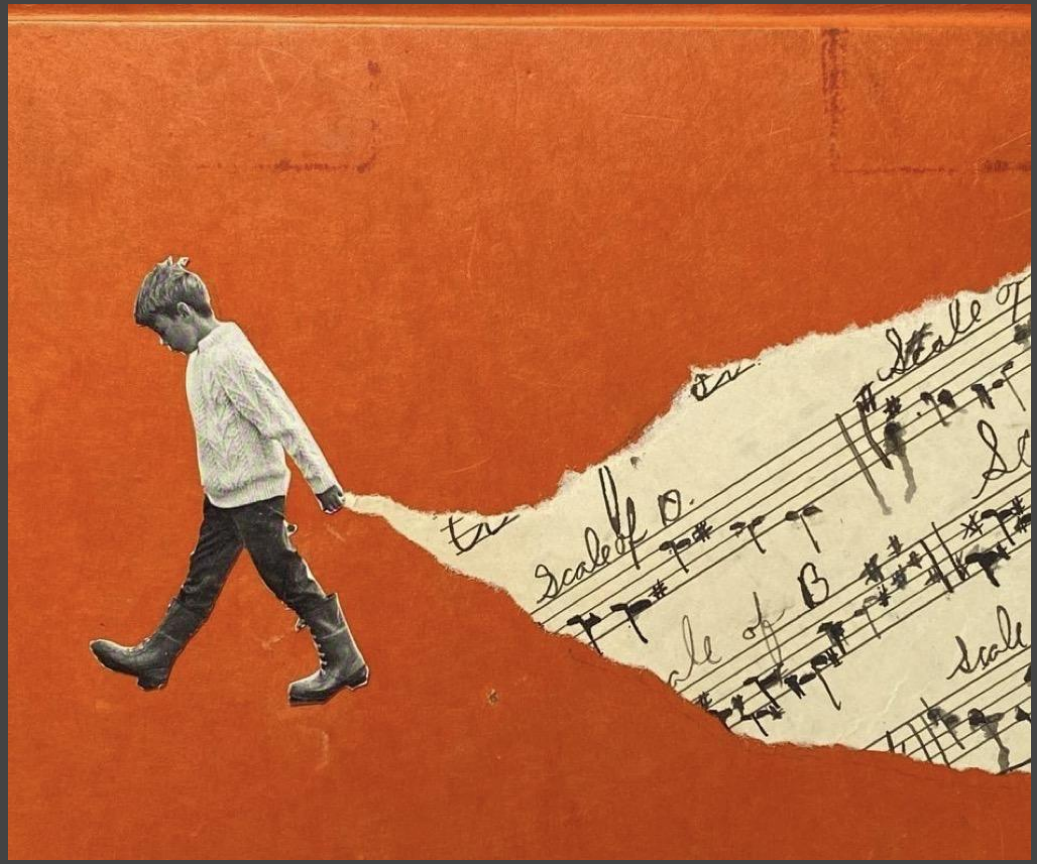
«Siediti, ragazzo,» disse Flint gentilmente, come se a avesse ricordato gli inizi della loro amicizia. «Se la fo non riesce a capire, per u dai umano.» I compagni restaron

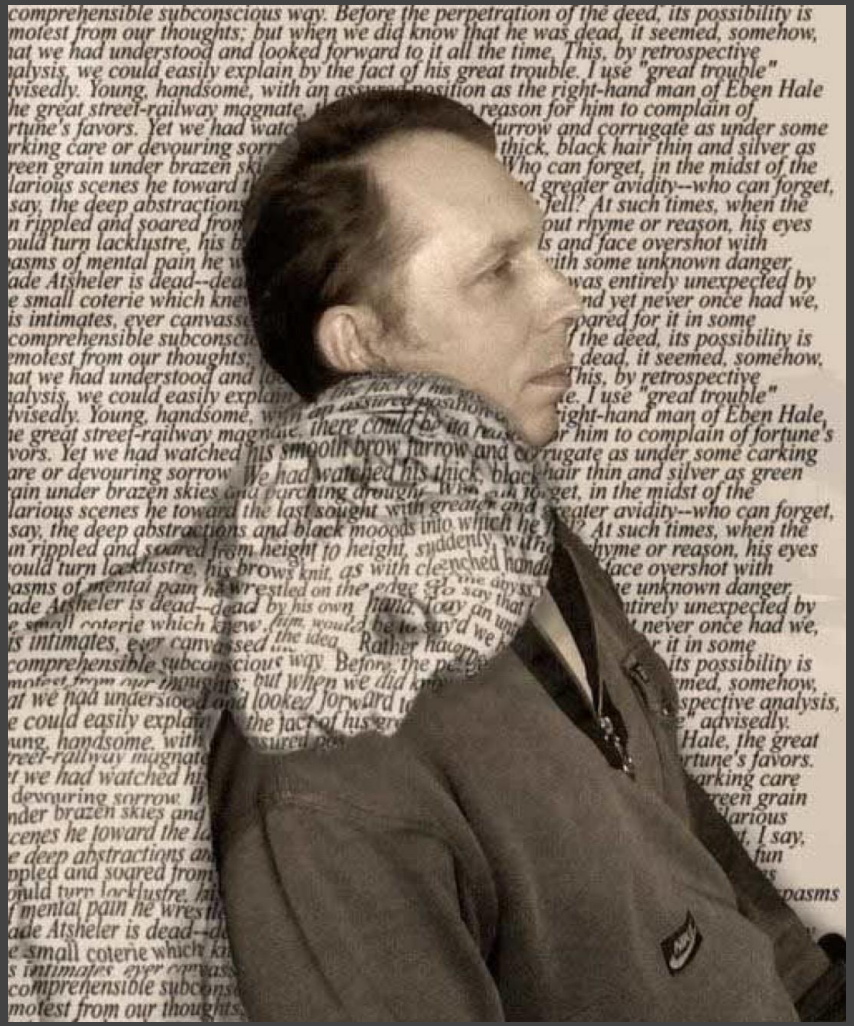
Tanis chiuse gli occhi e senti bre. Udì poi un grande grido wind! Tanis spinse da Ignorando il dol trò nella s dalla pa la sua ra

«Non siete, se gli hanno ete pote sciateci sciò di voi!» Il p piò a pian ra l de Riverwind i vanti a a co in pugno. Tanis g spera i impo o di autodistruzion basa to del si fermò, incredulo. uto ri fiutò di crede opria vista: forse la era anneb biata dal dolore. Levò lo sguardo al bel viso sereno della statua, perché desse sollievo ai suoi sensi disordinati e confusi. E poi guardò di nuovo.

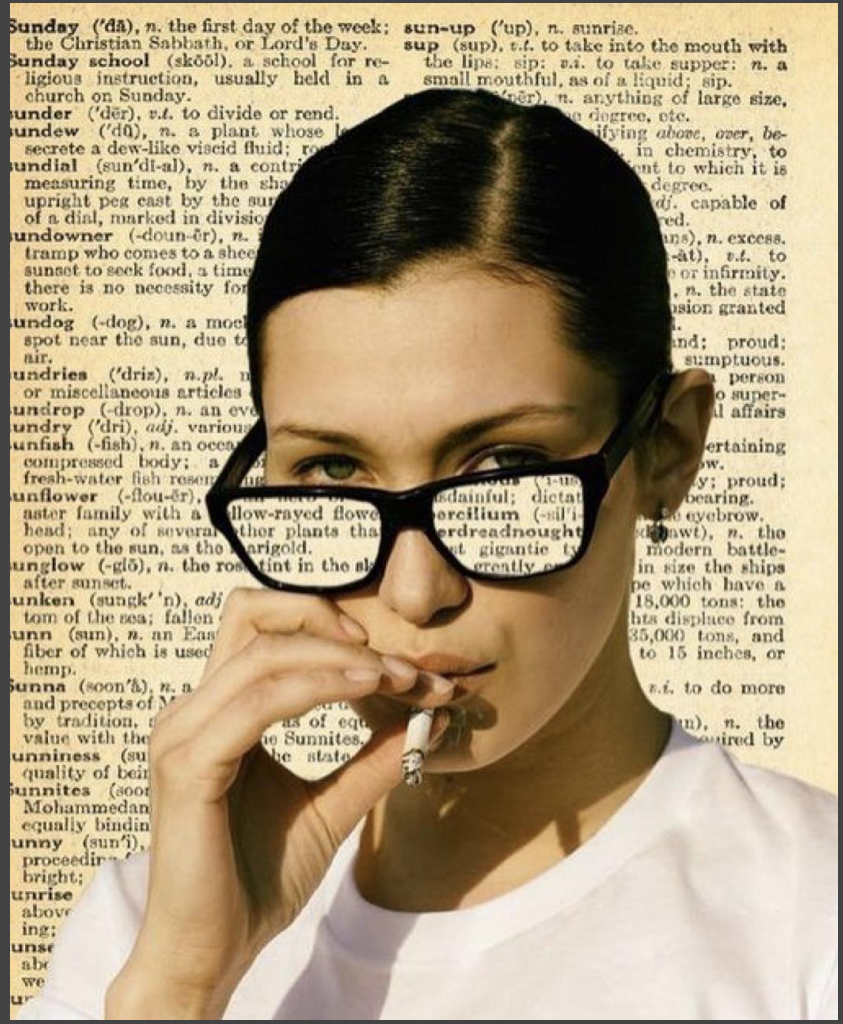
Goldmoon giaceva lì, addormentata profondamente, col seno

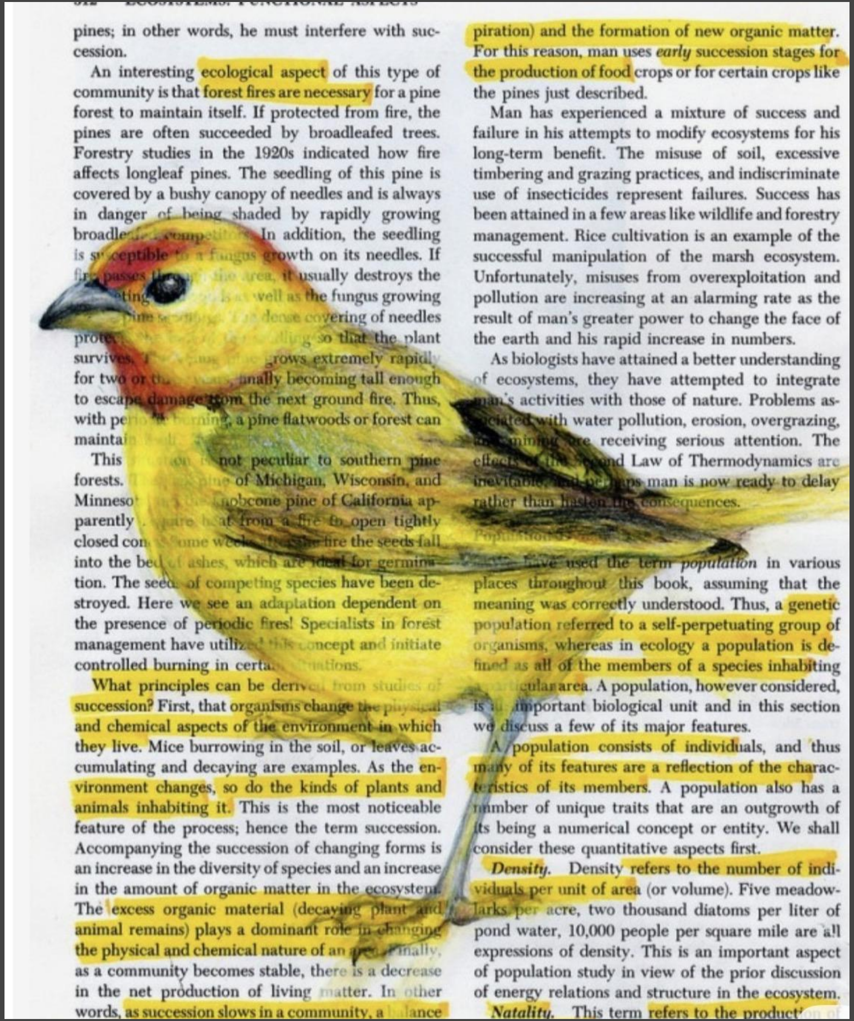







Très vite, on ne
plus subtil — on
un Tartare (et l'
racisme inavoué
totale incapacité
qu'il ne veuille pas
rie individualiste,
le dessus. Dans un
ménage de l'indivi
est de taille. Pour
cation politique,
confond avec
quoi. En scène,
se détacher du ra
pas de ne pas être
vers la lumière
salle, par la salle
dant hors du théâtre
limites de l'univers.
On le fait dégringoler
du professeur Pouillne, vieil homme
« canard noir » (c'est ce qu'
nant mais qui n'en
il est sûr qu'on ne
robot ou un danseur
ler cette pierre et
sculpté, j'ai grimpé
renvoyé en pénitence
Leningrad, l'épouse
elle-même — se
« canard noir » qui
et se voit, le directeur
ciellement dans l'
été désigné pour
et, ce soir-là, tous
les brigands furent
Noureev, danseur
qu'il s'avança, pour
debout.
La Compagnie a fait
l'Est, à Vienne et,
que nous allons
annonce qu'il
tempête, supplie
me fois, le directeur
le soir, il se glisse
tout, dans les rues
amis... « quelque
l'existence : la liberté
car la troupe, rassemblée
duire à Londres. « J'étais
connaître Londres.
lui disent : « Suis-
à Moscou ! » et lui
piste. « Je n'avais
rien prémédité,
nait là-bas — et
s'arrache à ses gardes
çais, s'accroche à
Les shires accourent
proie ; le douanier
parce que toute
toute ma vie était
et refuse ! Rudolf
dans une pièce. On
le droit d'asile
réflexion au cas
lui désigne deux
il a décidé de rester
S'il veut rester en
réfléchi. Seul. J'ai
pensé qu'il y avait
millions de Chinois
seul, tout petit,
bout de vingt-cinq
porte derrière laquelle
russes... » Il avait
Il a trente-deux
tous sacré et le plus
jamais connu.
Il est non moins vrai
insupportable, ombrageux
et des
et éprouve pour lui
parfois les limites ainsi
demande souvent si je dois
augmenter. Je pardonne,
harassant. C'est érein-
danseur à la demande
des années, a réussi à
aujourd'hui, caméra au
jours. Il a tout accepté
il hurle, s'encolère, jette sa
ses chaussons, les remet,
temps des ailes d'ange
de Pierre Jourdan.
« la Sylphide ».
sera huitième fois...
fois. Quinze fois ! Ivre
Muscles brisés, torse cassé
comme un poisson en agonie
Jourdan crie « Stop ! ».
qui est le secret de tant de
Le secret de l'art de Rudolf
avec affaire à un barbare
indigieuse fougue et de l'ordonnance
que ; une sauvagerie qui se
ment se maîtrise. Le secret
dans le génie de ses « pliés »,
et de ses amortissements pour-
pour lui, ne consiste pas
huit battements, à sau-
mais à enchaîner des
dans l'espace, une série
à la fin, le brusque
autre danseur (peut-
cela mais aucun —
construire une faena
à l'ordre du Tout.
Margot Fonteyn a accepté
danser avec « Ruddy »,
Dame aux Camélias », le ballet
Armand », dans un film tour-
Soirées danseur. Elle, la
d'Europe, a accepté, ici,
la seconde. Il n'y a que Dame
élégances. Devant elle,
doucement et sourit.
tout mais c'est elle qui
n'a appris à le savoir.
ne connaissais pas les
ils dansent ensemble.
Buenos Aires ou
ils danseront ensemble.
mal, toi ?
pas mal.
communistes, jamais un
il se veut russe. Lors-
Pisetskaya vint à Paris
trois ans, une entrevue
Noureev. Nous fûmes
bient heureux. Ils par-
tiait, parlait et racon-
cut une crispation de
— et les larmes qui
couler et à glisser le
rait, comme l'enfant
cé, la tête toute brû-
la sœur aimée qu'
racontait, entre deux
verras petite sœur, un
lu verras petite sœur,
JEAN CAU


Sunday ('dā), n. the first day of the week; the Christian Sabbath, or Lord's Day.
Sunday school (skōōl), a school for religious instruction, usually held in a church on Sunday.
sunder ('dĕr), v.t. to divide or rend.
sundew ('dū), n. a plant whose l... secrete a dew-like viscid fluid; ro...
sundial (sun'dī-al), n. a contri... measuring time, by the sha... upright peg cast by the sun... of a dial, marked in divisio...
sundowner (-doun-ĕr), n. ... tramp who comes to a shee... sunset to seek food, a time... there is no necessity for... work.
sundog (-dog), n. a mock... spot near the sun, due to... air.
sundries ('driz), n.pl. ... or miscellaneous articles...
sundrop (-drop), n. an eve...
sundry ('dri), adj. various...
sunfish (-fish), n. an ocea... compressed body; a... fresh-water fish resem...
sunflower (-flou-ĕr), ... aster family with a ... head; any of several ... open to the sun, as the ... marigold.
sunglow (-glō), n. the ros... tint in the sk... after sunset.
sunken (sungk''n), adj. ... tom of the sea; fallen...
sunn (sun), n. an East... fiber of which is used... hemp.
Sunna (soon'ä), n. a... and precepts of M... by tradition, ... as of equ... value with the ... the Sunnites.
sunniness (su... quality of bei... the state...
Sunnites (soon... Mohammedan... equally bindin...
sunny (sun'ĭ), ... proceedin... bright;
sunrise ... above ... ing;
unse... abo... we...
sun-up ('up), n. sunrise.
sup (sup), v.t. to take into the mouth with the lips; sip; v.i. to take supper: n. a small mouthful, as of a liquid; sip.
...(-ĕr), n. anything of large size, ... degree, etc.
...ifying above, over, be-... in chemistry, to ... unt to which it is ... degree.
...adj. capable of ...red.
...ans), n. excess.
...-āt), v.t. to ... or infirmity.
..., n. the state ...usion granted ...
...nd; proud; ... sumptuous. ... person ...o super- ...l affairs
...ertaining ...ow. ...y; proud; ...bearing. ...eyebrow. ...dnawt), n. the ... modern battle- ...in size the ships ...pe which have a ...18,000 tons: the ...hts displace from ...35,000 tons, and ... to 15 inches, or
...v.i. to do more
...un), n. the ...quired by



pines; in other words, he must interfere with succession.

An interesting ecological aspect of this type of community is that forest fires are necessary for a pine forest to maintain itself. If protected from fire, the pines are often succeeded by broadleafed trees. Forestry studies in the 1920s indicated how fire affects longleaf pines. The seedling of this pine is covered by a bushy canopy of needles and is always in danger of being shaded by rapidly growing broadleaf competitors. In addition, the seedling is susceptible to a fungus growth on its needles. If fire passes through the area, it usually destroys the [illegible] as well as the fungus growing [illegible]. The dense covering of needles protects [illegible] so that the plant survives. [illegible] grows extremely rapidly for two or [illegible], finally becoming tall enough to escape damage from the next ground fire. Thus, with periodic burning, a pine flatwoods or forest can maintain [illegible].

This [illegible] not peculiar to southern pine forests. [illegible] pine of Michigan, Wisconsin, and Minneso[illegible] knobcone pine of California apparently [illegible] heat from a fire to open tightly closed cones. Some weeks after the fire the seeds fall into the bed of ashes, which are ideal for germination. The seeds of competing species have been destroyed. Here we see an adaptation dependent on the presence of periodic fires! Specialists in forest management have utilized this concept and initiate controlled burning in certain situations.

What principles can be derived from studies of succession? First, that organisms change the physical and chemical aspects of the environment in which they live. Mice burrowing in the soil, or leaves accumulating and decaying are examples. As the environment changes, so do the kinds of plants and animals inhabiting it. This is the most noticeable feature of the process; hence the term succession. Accompanying the succession of changing forms is an increase in the diversity of species and an increase in the amount of organic matter in the ecosystem. The excess organic material (decaying plant and animal remains) plays a dominant role in changing the physical and chemical nature of an area. Finally, as a community becomes stable, there is a decrease in the net production of living matter. In other words, as succession slows in a community, a balance piration) and the formation of new organic matter. For this reason, man uses *early* succession stages for the production of food crops or for certain crops like the pines just described.

Man has experienced a mixture of success and failure in his attempts to modify ecosystems for his long-term benefit. The misuse of soil, excessive timbering and grazing practices, and indiscriminate use of insecticides represent failures. Success has been attained in a few areas like wildlife and forestry management. Rice cultivation is an example of the successful manipulation of the marsh ecosystem. Unfortunately, misuses from overexploitation and pollution are increasing at an alarming rate as the result of man's greater power to change the face of the earth and his rapid increase in numbers.

As biologists have attained a better understanding of ecosystems, they have attempted to integrate man's activities with those of nature. Problems associated with water pollution, erosion, overgrazing, and mining are receiving serious attention. The effects of the Second Law of Thermodynamics are inevitable, and perhaps man is now ready to delay rather than hasten the consequences.

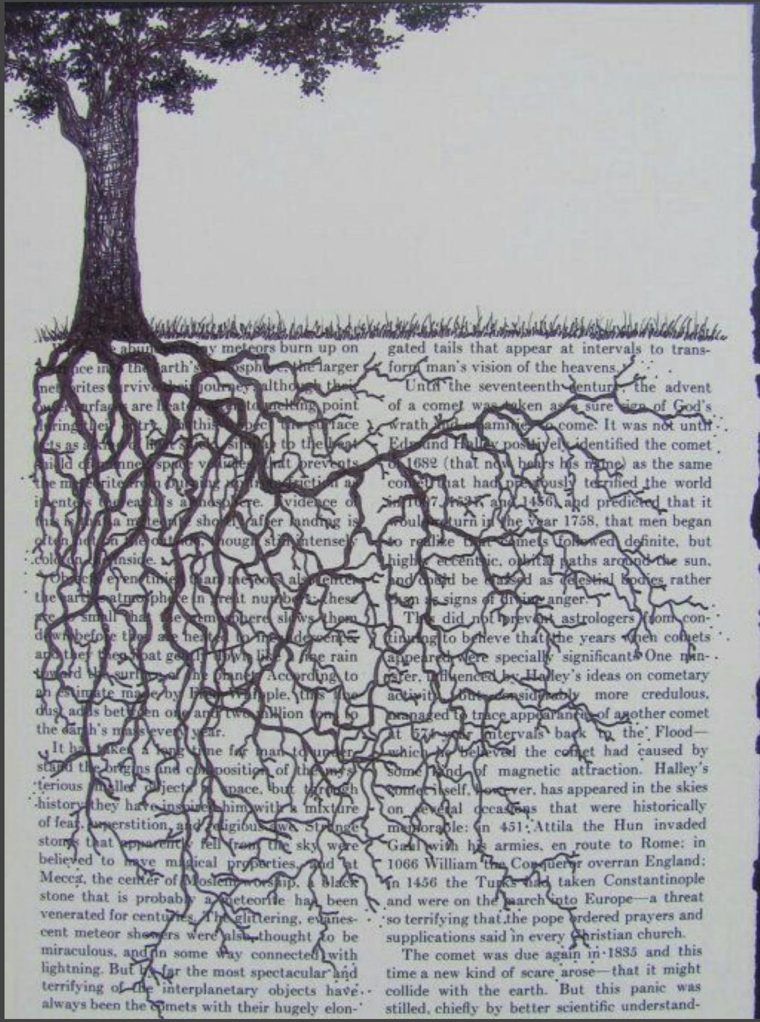
Populations

We have used the term *population* in various places throughout this book, assuming that the meaning was correctly understood. Thus, a genetic population referred to a self-perpetuating group of organisms, whereas in ecology a population is defined as all of the members of a species inhabiting a particular area. A population, however considered, is an important biological unit and in this section we discuss a few of its major features.

A population consists of individuals, and thus many of its features are a reflection of the characteristics of its members. A population also has a number of unique traits that are an outgrowth of its being a numerical concept or entity. We shall consider these quantitative aspects first.

Density. Density refers to the number of individuals per unit of area (or volume). Five meadowlarks per acre, two thousand diatoms per liter of pond water, 10,000 people per square mile are all expressions of density. This is an important aspect of population study in view of the prior discussion of energy relations and structure in the ecosystem.

Natality. This term refers to the product



[illegible] meteors burn up on [illegible] into the earth's atmosphere, the larger meteorites survive their journey, although their outer surfaces are heated to the melting point during their entry. In this respect the surface acts as a kind of heat shield similar to the heat shield of manned space vehicles that prevents the meteorite from burning up from friction as it enters the earth's atmosphere. Evidence of this is that a meteorite shortly after landing is often hot on the outside, though still intensely cold on the inside.

Objects even tinier than meteors also enter the earth's atmosphere in great numbers; these are so small that the atmosphere slows them down before they are heated to incandescence and they then float gently down like a fine rain toward the surface of the planet. According to an estimate made by Fred Whipple, this fine dust adds between one and two million tons to the earth's mass every year.

It has taken a long time for man to understand the origins and composition of the mysterious smaller objects in space, but through history they have inspired him with a mixture of fear, superstition, and religious awe. Strange stones that apparently fell from the sky were believed to have magical properties, and at Mecca, the center of Moslem worship, a black stone that is probably a meteorite has been venerated for centuries. The glittering, evanescent meteor showers were also thought to be miraculous, and in some way connected with lightning. But by far the most spectacular and terrifying of the interplanetary objects have always been the comets with their hugely elongated tails that appear at intervals to transform man's vision of the heavens.

Until the seventeenth century, the advent of a comet was taken as a sure sign of God's wrath and of famine to come. It was not until Edmund Halley positively identified the comet of 1682 (that now bears his name) as the same comet that had previously terrified the world in 1607, 1531, and 1456, and predicted that it would return in the year 1758, that men began to realize that comets followed definite, but highly eccentric, orbital paths around the sun, and could be classed as celestial bodies rather than as signs of divine anger.

This did not prevent astrologers from continuing to believe that the years when comets appeared were specially significant. One minister, influenced by Halley's ideas on cometary activity but considerably more credulous, managed to trace appearances of another comet at 575-year intervals back to the Flood—which he believed the comet had caused by some kind of magnetic attraction. Halley's comet itself, however, has appeared in the skies on several occasions that were historically memorable: in 451 Attila the Hun invaded Gaul with his armies, en route to Rome; in 1066 William the Conqueror overran England; in 1456 the Turks had taken Constantinople and were on the march into Europe—a threat so terrifying that the pope ordered prayers and supplications said in every Christian church.

The comet was due again in 1835 and this time a new kind of scare arose—that it might collide with the earth. But this panic was stilled, chiefly by better scientific understand-


Bella Copia
III