The Hog.

According to the system of classification adopted by Cuvier, this animal belongs to the department of vertebrates, class of mammals, order of herbivora, family of suidae, genus Sus called also swine. Description - short legs, stout and four feet; the jaws almost straight, pointed, mobile and sensitive, but not elongated into a proboscis; hair short, in various tints, variable in number and canines projecting. Ear and breeding have developed several varieties, as the Chester White, the Essex, the Suffolk, the Berkshire, the Chester, and the Prarie pork of the Western States, sometimes called the Pumpkin. Skin read from its anatomical construction and the pike-wheel.
back action, double and twisted Palm, which takes it through the post rail fence. There is great difference in the varieties some are long-legged, slanted, sharp-shouldered, have half famished creatures, and some are stocky, limber, dumpy, looking, short-legged good natured animals, always fat and healthy. The sight of a will pull at our throats the furmed into hypostasis and they at once at the most petious hows and ear splitting cries for milk, fruit, while the latter variety will only grunt good natured and not along after you. By the way, filled stomach, if you ride bareback, remember the stirrups to mount on them equal, as it makes them fore. The hog is the most deadly of all beasts and may come to be the personified representation of everything that is low and degenerated in man. Guttural, carious eating, filthliness, swallowing, mud-bound, stifledecker, good for nothing, low browed, and bagged.

He is to obstruct to that he is always bent as giving the will be a sure way to make him go straight ahead being to grasp him by the projecting terminus of the spinal column and attempt to pull him back, and so enable that he can never find the way out of a field when he easily found a hole to get in. Though, placed under hand by the Mosaic dispensation,ensible physicians, and all who love what is neat refined and quiet, yet strong ill, living and dead is profound.
in civilized communities and its foundation was to grave the whole of commerce and manufacturing both literally and figuratively, and to furnish strength and nerve to the labor. Every part of the domestic and domesticated animal is made of - \( \text{ dues from the hoof, breath from the skin, and leather from the hide, and innumerable liquids from the flesh and fat.} \) Who is not familiar with pickled big foot, tripe, fried liver, the lung, cooked with vinegar, boiled heart, cold boiled tongue, slices in vinegar, tendon, prunes, a finely compounded hash of fat and lean meat mixed in sour

proton known to housewives and often stuffed into-
the mustard wheats have been
previously carefully washed
and scraped, and after being
well seasoned with sage, pepper,
and salt, hung in graceful
festoons from the ceiling of
the kitchen, smoked ham
prepared after careful salting
in a smoke house by a fire of
coals, and used afterwards
in that famous dish in
the spring time, ham and eggs,
fried pork, which is a staple
while of chit for the break-
fast table in so many homes
in our land. Pork and pota-
toes will suggest the idea to
many of you who like myself
claim origin from the plantation
ranks, boiled pork and
cabbage with greens which
any who live in the country an organizer with cold boiled peck, flour, bone meal among
now "have beg in blue" if a few years ago or recently,
baked meat, fig, sweet
piec pore, pheasants and
other articles too numerous to
mention.

Eliz M. Lee.
Some Errors in the Present Views Concerning Greatness.

I believe that among college students there is no more favorite basis for literary efforts than the greatness of great men. Doubly do the feeling of one's "manifest destiny" calls out most of these productions, but, so that as it may, Carlyle-like, they seem to be all "Here, Worshipers!" to these students. All the lines of the illustrious, that "What man has done, man can do," and a great deal more, has the force of an axiom. But, unpleasant as the truth may be, for each one of us there are such things as impossibilities, and beyond certain limits circumstances must control our actions and the
results. Ambition, youth, so you aspire to be great; remember that there must be a fitnes of the man for his work and of the work for the man. Let a man commanding abilities at a time, there is an inviting field for their exercise, and a preying demand for them in the world's market, and if he have the strength of will to wield the power, shines he is famous. But the great law of supply and demand regulates the value of a man to his fellows as purely as it does that of the products of his labor. But powerful as may be the "right man in the right place", men he can do little except as the representative of the spirit which in his day is moving with some in the minds of men. Thrice have been times in the history of our race when, from one strong current have seemed to come influences which moved whole nations. But he who furnished the spark which kindled material long in process of accumulation and preparation. But light and glowing as those fires might, there had been, they would have soon faded out, if there had been no stores of material accumulated. But and communicated the blaze; or if the piled-up full had been not in an unfit condition for inauguration. Had Caesar and Napoleon and other great men walked their path and countries, I do not think that either man would have been
down and built up as he died. A hundred years earlier or later, I judge that Luther might have passed his days quietly in his clois ter. That Cromwell might have been known only to his few acquaintances as an honest, energetic, well-to-do English farmer. That in Letters Washington, a quiet Virginia county gentleman, might have never been called from the pleasures of that home and family he loved so well.

The other division of my subject is in itself.
to the present day were drawn even before
philosophical minds seek to systematize

all knowledge, and shaping facts into general
principles, and searching for unity of cause
in diversity of phenomena. This tendency some-
times leads to overgeneralization, as strikingly seen
in some of the theories of the influence of
climate upon man. The various families of
the human race, like the species of the
animal and vegetable creation, and those
embodiments of human thought, the different
forms of government, systems of religion, and schools
of philosophy, seem each to have a center of
development where they attain their highest de-
velopment. Hence we are inclined to think that it is
through the influence of natural conditions, the
principles of moral and intellectual life assume
these manifold forms, just as the same block of marble, under the chisel of the sculptor, may be made philosopher, statesman, or soldier. We are told that every people must enter into correspondent with the climate in which they live. But the universal law of nature is that the higher moral forces shall control the lower. Man is not a mere product of vitality, but a self-existing intelligence, for its own ends, subject to certain limitations, the physical forces. The distinguishing characteristic of man is his moral and intellectual nature, and although climate and its attendant conditions may in many ways affect the mode and strength of its activity, it does not strictly change its character. On the other hand, mental activity, the exercise of the emotions, the development of the reasoning powers, and the cultivation of the
3. does the order remain as proposed. 4. proof of the readiness

...
on which all progress depends. But these climatic influences alone will not account for the
shades which humanity assumes. If they do, why does not the South Temperate zone
offer as perfect a type of man as its northern counterpart? Tropical Asia contains
most of its original civilization, but the Heartland of Africa is found within one of the Tem-
perate zones, and the Temperate and Tropical countries of South America show the same
general characteristics. The most highly
civilized among the aborigines of this con-
tinent were found in Tropical Peru and
in now degraded Mexico, but unknown
centuries in and out分析 northern climate
had failed to make of the Sioux and the
Cannibales anything but lazy and
blood-thirsty savages.
To suppose that difference of climate made the English, German, and the Irish, a subject race, no doubt, gave nominal education to Prussia; while it kept in seclusion, until lately, the people of her neighboring Russia, is as absurd as to imagine that the loyalty of East Tennessee and West Virginia during our late war was due to their mountain air, rocks, and springs. The superiority of our country over Mexico and Central American States is striking. But this is due to our institutions, which were not the spontaneous product of the soil, but the growth of genius transplanted from other lands.

An eminent American writer who labors with great ingenuity to prove that
Third necessity rules the universe and that main fear will is almost an illusion, tells no that physical circumstances control mind as well as matter and furnish a reason for the extreme brutality and degradation of the savages of Australia or the inhabitants of any tribe. Of this what a fearful degeneracy this is, if the people's new conditions intrude, and brought in with a fearful degeneracy awaits the descendants of the energetic Englishmen who are the preserving these Australians, and what a woful inheritance will descend to the children of those hardy pioneers who are passing westward and taking the place of the peaceably human digger Indians. What, again, what is to prevent the American
people from becoming, like their predecessors, of copper colored race, with dark, shaggy, long, and stiff black hair.

The geographical situation of a nation is doubtless important and resources may give its direction to a people's activity. It was their extensive mines which led the English people to become a manufacturing nation, and their peculiar position which encouraged commercial enterprise, and suggested the establishment of their world-enriching colonial system. But not even the resources of Turkey can not prevent the decline of Spain's commercial power.
The climate of different countries has
changed but little within historic times,
and, if national development depends upon
this, why do we find that the most
powerful nations of antiquity have perished,
leaving only their memory and the still
imposing ruins of cities, once great centers
of intellectual and industrial activity?
It was the character of their constitutions
which induced the decay of those an-
cient forms of civilization. Civilization
is the outgrowth of great principles, and
the more of unchanging right and
truth it embodies, the greater its
strengths and vitality; but, if nour-
ished by error and injustice, though its
growth may be rank, for awhile, it is
abandoning us to incubation the
prison of certain death.

Modern society is not a mere
outgrowth from that of antiquity, a new
edition revised and improved; but it
is built upon a new and firm foundation
the chief corner stone of which is "love
to man" which manifests itself in earnest
and successful efforts to lift every
clap and condition of men to a higher
plane of thought and activity.

I have urged that principles are
the essential elements in the formation
natural
of character. Of these religious principles
are the most radical in their operation
and principal in proposition to their
effect upon the heart, the fuel spring
of all activity.
Waking the transformation of society through its individual members, a true Christianity is destined to prove a regenerating force in all the nations. It was not the spontaneous growth of some favored spot beyond which it cannot spread, nor is it dependent upon any physical influences for its progress, but it goes where moral man is found. No climatic influences, no depth of degradation, no wall of prejudice, can insulate any people from the electric thrill of the new life it brings.
The fact that a race have not attained a high order of development is not conclusive proof that they will. Our race is yet in its infancy and the limited experience of the past but dimly suggests the possibilities of the future. I will not believe that some of the finest and most fruitful portions of our earth must be spoiled forever by a moral miasm which will found breed because of man. Let us the lesson of Christian civilization be introduced among the peoples. Saviors of humanity in Asia and Africa, and the inactivity of centuries will give way to the activity of a new life.
Steam, electricity, and printing, great forces of modern society, shall everywhere be the faithful servants of free thought, politics, liberty, and wealth. Working industry, while true religion, universal education, progress, and prosperity, confined by no bounds, shall be the possession of man in every land, good and true, in every land.
The distinguishing characteristic of the present age is progress—progress mentally, morally, socially, and physically politically. There is intense activity in every department of human effort and changes are taking place on all sides.

It is true that progress is not always improvement; that the old should not be thrown aside merely because it is old, and the fact that anything is new is not alone an indication of worth. It is true that while there is progress in one direction, there is often a retrograde movement in another direction.

While great changes are going on, in violent and sudden, their appearance will make
On America a fight struggle has been going on for a long time for the rights of man. In England, the contest between the privileges of the few and the rights of the many has been going on for centuries. The people have led steadily during this privileged few before them. Within a few years they have gained a strong position from the enemy, which will be hard to break for further operations against the enemy. In Italy we have seen a whole nation relieved from the tyrants' yoke and a representative government established over them. Thus may be still alues to complain of, but in every country where the people have a view in their own government, however weak, there is a chance for their realization at some future time.
Everyian feels the spirit of the age and is granting new priviledges to the down-trodden. Russeu, friend of our own country, at one stroke, raised to manhood a million of the humble poor. A new spirit seems to pervade the world, and every gained by proper law rights only serves to as various grounds for new ambition.

As let it be. The dream for something better will end with man and as far as we can see, the work of our soul will never be accomplished. The thine will come some when some will be reached. Fruits to gain or much spirit to achieve, nothing more to accomplish. No, there will always be something to fight for.

Eliza R. Lee.
Sat ans and etc all look back to
a golden age. The Protestant
is ever pointing to the family, strength,
and simplicity of the primitive church,
though I sometimes think we are
too apt to overlook the ignorance,
and the gross vices of which the
Churches complained in their letters
to the Churches. The devout Catholic
mourns the past days which
have come upon the Church,
when life abounds and men
are no more subject to her infallible
decree, and be tells you with pride
and sorrow of the days when
wars of the Church, and the art, talent, wealth,
and power of the Church nations,
may be the control of the Church,
and contributed to her augment,
and decay.

No Name.
The faculty of retrospection is a constant
source of pleasure. It enables us to review
all the perfections of past days as
we cause them to float, to
and see before the mental
vision, particular scenes from memory's
picture gallery. The pictures which
anticipation presents are alluring from
the very uncertainty of their fortune; time
of memory are directed of all doubts and
fears, fires, battlefields, where success
and defeat alternated, which we review
sometimes proudly, and always coldly.
for there is something even of com-
fort in the fact that a certain is-
pere is now unalterable, and therefore
beyond the reach of anxious care.

Intervening space mollifies the
outlines and colors of distant landscapes,
and intervening time, with similar
imagery, softens and familiarizes the memory
of joys and sorrows.
Let the traveler, having failed to the
summit of some activity in his
course, pause for a moment beneath
the shade of some tree, and review the
hills he has reached.

To his view
now, how short seem the long miles!
the weary hills appear only like
graceful undulations; it is the
reaching paces of the same which render
the landscape so bright and beau-
tiful, and the rough rocky paths,
looking so smooth, as it may from
the distinct most correct hills, map
in a soft blue haze.

Similarly illusion is the back-
ward view of the traveler on the
journey of life. Some trials, doubtful
conflicts, and innumerable labors, are
points of particular interest in
memory's view. Hour once the
darkest may now seem the brightest,
and most well done, duty performed,
We seem to never appreciate the greatness of the men, or the grandeur of the deeds, which the present efforts, but-to-mist-believe they are shrouded in the mist of the past—when they loom up dimly, but in larger proportions. How often have we heard the skeptical inquiry, "Where are our great men now?" The age of Jackson condignly shut the door upon the Washingtons and Hamiltons, the age of Lincoln and the moment that we have now no Webster and Clay and Jacksons to guide the ship of state. Doubtless a not distant future will print with peculiar pride to the glorious days which furnished a Grant, a Sherman, a Union, a Lincoln, a constellation of thoughts, stars in the political
heavens, and an unerring sense of honor. How often in years gone by did the croakers occasion us to say, 
that patriotism was only another name for love of office, and that courage and devotion to country had in no danger
given way to a sordid love of money and unaffirmative desire for ease and power who may believe that ignorance and
ignorance promote election, deplore increasing intelligence and the growth of
the thought among the masses; let the monarchies of the old world and the
autocracies which supported them impede against the growth of the popular power
which is constantly rising from their own conceptions, only to gain strength for greater demands; let the ground
slavocracy of the South rise menacing for a return of the beneficent days of the Union as it was, when he enjoyed the inalienable
right of all white men to make and fly their muggoes to their heirs'
content? or those who substitute antiqua-
Miscellaneous Exercise in Persuasion.

Air is regarded as a simple substance by the ancient philosophers, but the experiments of modern science prove it to be composed of oxygen and nitrogen. The general belief is加强对, since a majority of its to explain how it burns. The formation of dust does not explain how fire can be produced with any fire. The fire, formed by the action of the sun, is a prime source. The greater part of them are invisible, and their existence is as profound as their worship is contemptible.

The men are men themselves as their [illegible]. The effects of their marriages, and the children in their lives, are the main valley of Cain. It is twenty miles in extent, and of considerable width; it presents a most absolutely barren, being entirely destitute of vegetation. The first man was indeed, but they are merely the instruments of his art, not the subject.

The true mode of learning should be as follows: first, what necessary; second, what is useful; and third, what is ornamental. First, the study of the arts; first, poetry, secondarily, the classics, philosophy, history, teachers; after that, the sciences, their gifts of healing, helps, government, charities of tongues. The duties of man are two-fold: first, those he owes to his Creator; secondly, those he owes to his fellowmen.

We have three great branches of literature, viz., schools, colleges, colleges, and miscellaneous. These are three cases; the nomination, the procedure, and the objective.

After investigations, Eunomus of the first person are generally used in the objective case, as, "Ah me!"

The greatest man is he who chooses the right with immobile resolution, who resists the evil temptations from within and without, who bears the heaviest burdens cheerfully, who no colored in office, and most people under consideration;
and whose reliance on truth, on virtue, and on God, is most confi-

The delightful lessons of Cope's manner, so acces-
sible to the long deceived to the school of which
the radical fault was constraint; his works and tenders, his
safety; his sacred pride; his planning and well-subjected
patience; his description, unprejudiced in accuracy
and accuracy; his playful humor and powerful satire,
all combined to render him one of the most popular poets
of his day.

Read not for the purpose of contradicting and concluding;
not of believing methods for granted, nor of finding ma-
terial for argument and conversation, but in order to weigh
and consider the thoughts of others.

Elmwood, Feb. 9th, 1865.
The column circle around the death bed; the stifled grief of heart-broken friends; their watchful anxiety and touching tenderness; the last testimonies of aspiring love; the feebly fluttering pulse of the hand; the last foreboding of the glistening eye, turning from me even from the threshold of existence; the faltering accents, struggling in death! To give one more assurance of affection, all these recollections press into our mind as we stand by the grave of those we loved.

Whose gray hair shall tumble to descending. The baptism of John, was it from Heaven, or of men? This point admitted we proceed to the next division of our subject. The Logos, the Word was sent. This point, He formed thee, Adam; the Onom Man to man; steel to steel, they met the enemy. These being lost, all virtue is lost. Their counterenances in proprie of deep humiliation, they entered the palace.

One time, she was visible at Prayer only. How strictly, one time, prayer only. Her dimples and pleasant smile, how beautiful they are! How beautiful are her dimples and pleasant smile! My lovely, she is covered with bees. My hands are covered with bees.
Mahomet left Mecca with much regret; he returned a meekly conqueror.

...of a professed Catholic, he imprisoned the Pope, a pretended patriot, he impoverished the country. - The sincerity, those lively tracts of God, contain the only authentic records of primeval ages.

(142) The rivers Volga and the Ural Mountains form, according to some geographers, the boundary between Asia and Europe. We know how men may admire the great, if we cannot equal them. - John Howard Payne, the author of "Home, sweet home," and Samuel Moore, who composed "The old ramen bucket," occupy a prominent place among American poets.

(143) At the talents and virtues of all who hold different views from their own, certain partisan writers are accustomed to jeer. Of all the passions, vanity is the most universal. To love, more a politic or the point of realizing his dreams of glory, sacrifices the opportunity of doing.

With a crash fell the second gate. - On one devolves the revolutionary task. In memory's twilight hence the mind loves to dwell. It is only by constant effort that men succeed in great undertakings. To the poor we should be charitable. - Victory I read daily.

(146) The miracles that Moses performed may have convinced Paroah, but at first they humbled not his pride. - Every impulse, angry, revengeful, and envious thought, is a violation of duty. - The evil that men do, lives after them.

(147) He who stands on etiquette, merely shows his own littleness. To become conspicuous with a single department of literature only, has a tendency to make one views narrow, and one unprejudiced manner.
carpenter, a stock larger, a civil en-
gineer, a naturalist, and architect.
They travelled sixty miles together over some
of our railroads on a summer day.
Description of their journey a year
afterwards, and you will find that
the memory of each one has retained
a different kind of impressions.
The farmer remembers the character
of the growing crops and the general
fertility of the country. The builder
remembers little besides the style of
architecture he saw along the way,
or the beauty of some particularly fine
houses. The stock larger can tell you
only whether the pastures were well
plowed or not, and what was the
scheme for a profitable speculation.
The civil engineer can describe the
bridges, tunnels, curves, grades, along
the way, but all other matters have
faded out of mind. The natural-
ists know some of the different veg-
etable forms since he saw, and the
general structure of the country, then
and all the others. While the artist has
for decades in his memory only
pictures of beautiful colleges painted
out into masque mask by moonlight,
sparkling lakes seen through
openings in dark green groves, or
cattle standing knee deep in bul-
ing brooks, being surrounded quietly
under cool spreading elm, or
hearkening with grace and lending
a tender ear. Does one remember what
is made clear to the constitution of
his own mind, not only because
he gave most attention to that, but
become his memory has greater
power in recalling impressions of
that kind. The mathematician
will hold in mind ready for
instant reference mathematical calcu-
lations and string of reasoning which
others find difficultly in even
The memory of the lawyer holds all the day details, above title-calculations, and almost everything sensible in every matter of the last part of Brown vs. Bean. The physician remembers all the details of a great away of medical statistics which he read many years ago. The mechanic remembers all the details of the Price Current. The editor is not liable to forget the complete vital game of politics, no matter how intricate and engrossing. And so it is the world over; almost any one possesses a power of memory in one line of business or another, which others do not.

Elon N. Lee.
let not the Methodist—p... whether this or that—

sentiment—be true according to Wesley or Whitfield or the

founders of their denomination; let not the

Congregationalist—a man to

know whether this or that—

opinion was held by the Per...—of the times of Com...well on the Puritan fathers of

New England; let not the

Messianic or the Universal—

ist—speak—on the pages of St. John concerning the

Word which became flesh

and dwelt—among us or the

Universalist—or the words of St. Paul to the words of

Paul where he speaks of

Christ as the word of David
concerned opinions, no matter how clear, no matter acute. The effort costs, let them write. Let-think be accepted, let its foundations be obeyed, its counsels followed, and let it be taken. In the heart, no matter what the struggles are. Nay, all men followed on this principle, how different would be the condition of the world. I am not the one to say that they would be nearer the positions you and I stand upon. Of course I think they would. And not doubt others think just the same. But at least the world would occupy a higher, noble position.
And how much better would it be for the world and how much
other worlds we arrive at! To its first it is placed if one reads it
should be for that and that alone. Let—let the Baptist—
your view, not that harmonize
will, immurcing as the comp-en-
tral mode of baptism, or the
ments of admission to the Lord's
upper whom we preclude; let
not the Episcopalians all,
does this agree with the opin-
ions of the Church, that is the
true Church, concerning the
Apostolic succession and the
order of bishops and the use
of an beautiful manual of
worship; let—let the Party-
Nunner say as this the straight-
or Calvinistic doctrine con-
cerning the sin and original
sin and the statement.

Independence of thought in relig-
ious matters.

We all believe in the responsi-
bility of every man to his Maker
for his religious sentiments, and
that he can in no way direct
himself of it. And yet it is
true that for the greater part of
the opinions of men upon those
things which concern their
eternal welfare. Leaving out of
consideration those Bible and no-
time to whom Christianity is not
known, still forming the great-
er part of our the human race,
Let us look nearer home.

We find in the Catholic Church
the principle of individual re-
sponsibility for one conscience,
set in the minds openly and avow-
ably, and the Church and sec-
Teachers made the guides who were implicitly followed. Protestant Arnold Jourard, and no doubt honestly, the greatest freedom of thought, and me. But I cannot resist the conviction that the in a great measure of most persons is the result of an ancestral inheritance or is the growth of surrounding influences. Not that I would deny the existence of absolute truth. I come generation to generation one family holds Calvinistic doctrine while another family holds as judgments by its doctrines called Arminian. The peculiar views of each are inculcated by early education, and we can like some family in its home, being taken as a mental problem to be sought among the subjects of doubt. Looking back over the history of the past, I see how now and then some great principle has Ennemot's some great religious principle. And perhaps, fully brought out before, and these after thousands to take it as their guide. The world allow these few to do their thinking for them. I know there are preaching sermons, but I do not mean to except myself or my own denomination. I know I have felt the tendency in myself to take emotionally any when best it should conflict with those I had already espoused. And though I hope Bonar never be guilty of sufficing my loss of absolute truth, a desire to be consistent, yet I think there is an almost irresistible fear to leave one assorate in religious matters.
The Uses and Abuses of Fiction.

That there should be a symmetrical development of all our powers, that every faculty is God-given committed into our hands to use for our pleasure and our profit, and that they all tend towards the development of a complete and perfect manhood, is an idea which we find as a component part of various theories of progress and reform at the present day.

In the sincerity of honest conviction, this principle has been often denied—by the arctic who holds that the gratification of the wants and impulses of our physical nature was at the expense of the spiritual. Others, by those who from religious precepts have protected against the sly
The practical departments of human effort, such as painting, sculpture, the lighter forms of literature, &c.,

are of the purest and most refined taste. The novel and the romance of every kind and quality have been kept down by many good people, but a reaction has been going on, and the tendency now is rather to luxury than to simple truthfulness. The imagination is one of the finest faculties of man's nature, and it has given to us some of the sublimest thoughts and some of the noblest works of man's genius. The imagination labors in a broad field in painting, sculpture, music, architecture, and literature. But it is in the field of fiction that we meet it most often. Fiction has become a power in the world, and, like any other power, physical or mental, it can be used for the lowest purposes as well as for the best.

The proper use of fiction is to refine, ennoble, instruct, and entertain. Provided to have purposes, it becomes a teacher of good, a medium for communicating true views and false principles, and a means of mental development.

Fiction has various modes of expression. The common saying that "fame is more truths than poetry in this or that," indicates the character of the greater part of our poetry. The great works of Rome, Virgil, Dante, Milton, and the best works of our own Longfellow, are the highest flights of the imagination. Fiction is employed, so, with great effort, to instil and valuable lessons through allegories, fables, and stories. But its most common expression is in those works which portray the passions, vices, and weaknesses of humanity in the romance and the novel. The character of these pure through an extended cycle of variation,