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Introduction

This is, like many others, necessarily consists of a mere compilation, with regard to all its principal points.

The subject itself, Deception, is no less interesting scientifically, than useful Medically. But it is not a subject that can be "read up," if then, having got many facts into the mind, written down in detail without more than an occasional reference to notes and books, but each part must itself be classified with its own separate materials collected together. Thus more than a "compilation" (as the word is usually understood)
is often required; for it is not easy to describe an exact state in language different from the description from which the knowledge was got; nor would it be desirable, thus, to exact so point, if we were not making a substitute. It is "compilation intensified" here. So I have not hesitated, with this explanation in adopting, whereas it is in the least degree convenient, the very words of the very authors I have consulted on the subject.

What is collected here comprehends the principal facts on the subject without going into great detail, which would have made the paper of too
Something original, however, has been attempted, with reference to "Composition in White," which, I marvellingly, had not been fully investigated. The reason for bringing in my experiments on this subject is that they have been performed, I took as much trouble, though of course with inferior results, as if they had been done by one experienced.
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Chap. I.

On the Nature of Putrefaction.

Between death and the commencement of Putrefaction, Physiologists assert, that as the body falls gradually under their dominion, thus first we will enumerate the principal Physical Changes.

The skin loses its elasticity, the flesh its firmness, and the blood, formerly kept circulating through the frame by the action of the Heart and Arteries, now losing their influence and becoming obedient to the Laws of Gravity, collects in the most dependent parts. Hence some parts are pale, and others coloured, or rather discoloured, especially the deciput and back externally, the dependent parts of the intestines, and the posterior part of the lungs internally. We are supposing the body to be lying on the back, as it usually is; but if placed on the face, the conditions are reversed, and the An-
tissue parts undergo these changes. And even altho' they have taken place on one side, if coagulation has not yet occurred, the body is still somewhat warm, they will change from that side to the other, if the body be turned. On a smooth surface the discoloration appears uniform, on a rough, inequable. The latter appearance must however be distinguished from that produced by pressure of clothes. The extent & amount of the discoloration depends greatly upon the quantity of blood in the body. Thus sudden death without haemorrhage or effusion leaves great lividity; and after death preceded or caused by haemorrhage there is but little. This stagnation of the blood explains the diminished colour in the diffuse tisue severe forms of inflammation; but the marks of acute remain permanent & quite distinct after death, as those of Burns or Blisters. The marks of strong friction of anything on the surface & those of mutant poisons on internal
parts are also quite perceptible. The cadaveric lividity, or "Hy postasis," is supposed to be distinguished from the effect of injuries during life, by the seat of the discolouration being in the so-called wrinkles and in parts external to the true skin; a dark line is seen on section, from which the blood, being in the vessels, can be expelled by pressure, the dermis itself being white. But in that produced during life, the true skin is injected with blood, it has a number of bloody points when cut. It is said, however, that this discoloration of the tissues external to the true skin is not invariably.

Besides these discolorations, due to the changes of the blood in the vessels, there are others due to the "transudation of fluids," e.g. the parts round the gall bladder becoming stained with bile, the chills of the cornea produced by the aqueous humor.

This subsidence of the blood and discoloration of the tissues, explain very well their relative
state, certainly previous, but which is usually attributed to putrefaction. The fluids then, becoming blue or green according according to the stage or variety of decomposition, staining the tissues impart to them their characteristic ties. This brings us on to "putrefaction" properly so-called —

**Putrefaction**

We will first give a general view of the subject, including its leading phenomena, which are much the same, whatever the medium be.

There are three distinct forms, "colloquiate putrefaction", "Saponification", and "Mummification". The first of these is what we nearly always see, occurring in the great majority of cases. We will therefore take it first for description, afterwards as our standard of comparison.
Colliquative Putrefaction.

The chief phenomena are as follows — in from 24 to 42 hours, the abdomen becomes slightly green, the eyeball soft, losing its vital tinge, and there is usually a slight cadaveric odour. Next, in from 3 to 5 days, the green discoloration becomes deeper and rapidly in some places passes into brown, this includes also the genitals. In from 8 to 10 days, we have reddish-green abdomen, cellular tissue infiltrated with a bloody fluid, the colour of the discoloured recognisable. The several cavities of the body, but especially the abdomen are filled with inflammable gases.

The effect of this development of gases is sometimes remarkable. It is occasionally so large and rapid, as to change the position of the body. The internal viscera become displaced owing to the resistance of the walls. The diaphragm is thrust upwards, the contents of the large vessels are for-
are forced towards the head & neck; the veins of the sur-
face also are well marked. The eyes become promi-
nent (though the corneas are flattened). The face be-
tcomes swollen. A mucous or bloody fluid flows from
the mouth & nostrils; in rarer cases its contents from
the Rectum anasthesia also by relaxation of the sphine-
ters. If a small or large vessel happens to be wound-
ad or ruptured, bleeding takes place from it—the
formerly gave rise to the absurd superstition, that
if the blood flowed from the wound of an indivi-
dual murdered on the touch of the accused, the
latter was supposed to be guilty. This was one of the
first Medico-Legal applications of putrefaction, tho'
unwitting! Thus the effects of the development of
gases are numerous & varied. With respect to the
distension of the abdomen however it may be
worthy of remark that this sometimes occurs before death.
There is reason to believe that this production of gas,
probably Carbonic Acid, in parts of the body filled
with Blood, often precedes the other common signs of putrefaction. Dr. Guy has seen it occurring very early, both in the lungs & in the membrane of the gums.

14 - 20 days. — Body throughout is red or greenish-brown, cuticle is peeling off, and all parts are distended by gases; Penis thus becomes semi-erect. At this stage generally attacked by maggots, ravens, crows, &c., if exposed. Face becomes puffed up and disfigured, so that it cannot be recognised, thus, the recognisability of the features may, & often does, come on more rapidly. The cheeks are generally green or brownish-red. As decomposition advances, the muscles grow viscid & pulpy, & exhale a highly offensive odour, assuming a dark greenish colour.

These are the principal changes that take place by simple exposure to the air. After this, putrefaction advances slowly or quickly according to external circumstances. This has given
rise to the following general rule by Caspar, viz. "Bo
dies green from putridity cannot be said to be dis-
tinguishable from each other, whether dead for one
or for five months."

As putrefaction goes on, the abdomen often bursts
suddenly, generally at one or other of the natural
openings, e.g., abdominal rips or umbilicus. The
eyes burst, the orbits empty. The genitals form a
magma or soft, pulpy mass, and we are unable to
tell the sex. The bones become exposed, and the joint
separate, etc. At length, the whole tisue of the
body becomes changed into a soft, semi-fluid
mass, which gradually parts with its moisture,
dries up, leaving a fibrous, fatty residue, slowly
lost in the soil. Sometimes this is very rapid,
sometimes it takes many years, the rapidity
depending greatly upon the circumstances
under which the body is placed. There is one
circumstance that increases the rapidity, when
otherwise it might not have advanced so fast, viz., the part
already decomposed acting as a sort of leaven or ferment
to the rest, this being especially the case, as it is a putrefy-
ing substance acting on a putrescible, which has itself a
tendency to undergo, it would in time do so of itself, the
same kind of decomposition as the substance acting on it.

This action, however,
is quite different from that of a true leaven or ferment.

We now come to a second kind of putrefaction - viz.

Saponification

This occurs in bodies lying in water or damp soil,
as that of barn yard, &c. There have been examples
of all the bodies in a grave-yard having become saponi-
The other conditions besides moisture for its occurrence are, as yet, but imperfectly known; though at all events it is ascertained that the fatty a body is the more readily with it saponify — in fact, a dispute has arisen as to whether or not it can occur without fat. The change virtually consists in its being converted into a substance called adipocere. In recent bodies the saponified matter is white, soft, ductile and watery, quite distinct from greasy or oily matter. After existing from 30 to 40 years, it becomes more waxy. If exposed to the air, it becomes brittle, which is due to loss of moisture; at the same time ammonia is exhaled, though whether this has anything to do with it or not, we don't as yet know; it certainly seems to have. At first for some time we find traces of time through the saponified mass, but these ultimately disappear. The traces are all traces to saponification more or less, though they are not all affected at once, having a certain order of frequency.

Bodies may remain saponified for any length of time; there were some in this state in old Roman burial Canova found in Loch Doon in ayrshire, which in-
questionably must have been very ancient. Formerly the idea was that it took 20 or 40 years to accomplish this process, but it is now ascertained that it may occur much sooner, only in 1 year in water, and 3 years in moist soil. In water it begins about the third or fourth month. The present view of the chemical composition of adipocere is that it is formed of Mauganie and Oleic Acids united with Ammonia. Under certain circumstances, if it lie too long, a bine soap is formed by the displacement of the Ammonia. Bernard thinks it in every way quite distinct from fat. We do not yet know the theory of its formation; for this is a subject still open for investigation. Saponification seldom occurs in running waters, completely at least, in the parts are washed away as they become broken up, or as they saponify. In fine, the body that has undergone this kind of decay gets broken up into particles and at last becomes a skeleton, just like that resulting from the Colliquative Change.

Mummification

This is the last form of natural putrefaction. It may
also, it usually is, produced by artificial means. To look at as a whole, the body appears shrivelled up, dry, with a little some something like parchment. The skin is brownish and very hard. Sometimes all except the trace of, internal organs are lost; at other times they are partially recognizable. This state is essentially produced by "exposure of the body to a current of cool, dry air"; hence it often occurs in bodies left in deserts. Again, it may be due to the arrangement or decomposition in air-tight coffins or their preservation in dry wood. Orpha gives a very good account of it as occurring in a church in Sicily. There is a so-called mummification produced by arsenic, but this is quite different, as it dries the bodies generally somewhat moist, instead of being dry. Natural mummification often occurs, the process being in a great measure as has been well exemplified lately in the interesting disinterment and recognition of Bodinici in Sweden, after a lapse of 300 years. In popular works of travels in the East there are to be found excellent and graphic descriptions of the appearance presented by bodies, which have been subjected to artificial mummification.

There is still another kind of rather variety of pu-
injection, to which the human body in one of its phases is sub-
ject to after death, and into some description of which it will be
necessary to enter. It is important sometimes in a medicole-
gal point of view. It is the following.

Intra-Uterine Maceration. This com-
prehends the changes which take place when the child
dies, it is retained within the uterus of the mother. Pierre-
spic says that putrefaction takes place as rapidly in the fetus in
utero as in the open air, but this is extremely doubtful.
In an advanced stage of Uterine Maceration, the body
of the child is so flaccid that it becomes almost flat-
tened by mere gravitation of its parts, when placed on
a flat surface. It may be well described as being nearly
a "bag of Bones." The skin is of a reddish-brown col-
or, not green as in a body exposed to the air. The Epi-
dermis of the feet and hands is white, sometimes laced
in blisters, the cellular membrane is filled with a red-
clasil-coloured serum, and the Bones are movable but
readily detached from the epigastic point. Pierre-
spic thinks that the principal difference between Uterine, and a mo-
aphoric putrefaction (in the body of a new-born child) exists in the
colour of the skin. But at the same time it must be borne
in mind that should the child remain exposed to the air
after expulsion, the skin may acquire the colour of atmos-
pheric putrefaction. The changes just described are such
as we might expect to find, when the child has been re-
tained for 2 or 10 days in Utero. If it remains for some weeks
before expulsion, the body has occasionally been found
in contact with Phosphorus of Chile. If in any case
we are able to state with certainty that the body of a
child has undergone this kind of putrefaction, it is clear
that it could not have come into the world alive. Under
ordinary putrefaction in air, the child may have been
brought into the world living, the process destroyed every
proof of the fact. If the child has been only dead from 24
to 48 hours before delivery, there will be no marks of putre-
faction; the appearances will closely resemble those of
a child born alive, dying without respiring, or in the
act of birth. In such cases it is impossible to come to a
decision. The body of a still-born child is often covered with
blisters & ecchymoses, even dead from natural causes.
Chap. II

Conditions affecting its progress.

Having given a general view of putrefaction in its different phases, we will next mention the various general conditions which affect its progress, and are valuable guides to us in forming an opinion as to the probable period of death. These may be considered under the following Heads:—

1. Temperature, Moisture, and Access of Air.

2. Period, Place, and Mode of Intemperance.

3. Age, Sex, and Condition of Body, with Cause or Kind of Death.

4. Medium by which a body is surrounded.

1. Temperature, Moisture, and Access of Air.

Temperature. Above 212°, and below 32°, putrefaction cannot go on; in the former case evaporation reduces the body to dryness; in the latter, the fluids being congealed, putrefaction is at once arrested. The temperature most favourable is from 70° to 100°. Thus
it is, as a rule, more rapid in Summer than Winter, and last is paribus, varies with the temperature. The temperature must always be attended to in a practical examination. It has an influence upon putrefaction, whatever be the medium. If a body is in very deep water, no external heat can get at it.

**Moisture** is an essential condition. If there was no moisture, putrefaction could not begin, or continue, after having begun, if deprived of it. As a rule, the body contains in itself moisture enough to ensure its own decay, and those parts containing most fluid putrefy the most quickly. Hence tropisical subjects are very prone to specially the decomposition. A moist and stagnant atmosphere favours putrefaction as much as by retarding evaporation, as by supplying moisture. Bodies which have remained for a time in water, and are then exposed to the air, putrefy more rapidly than those which have not been so immersed. But, though moisture itself is one of the most favourable adjuvants to putrefaction, yet too much of it, as as to exclude air, the next
essential condition, is quite the reverse. Thus, for this reason, putrefaction goes on much more slowly in clayey soil and in water.

Access of Air is always necessary. There are many proofs of this; for instance, putrefactive gases are very slowly produced when a putrescible substance is introduced through Mercury into a vessel, so as to exclude all air except that attached to the substance so introduced. Flesh is preserved in atmospheres not containing Oxygen; preserve it also, but less completely, in those in which Oxygen is chemically combined with some other gas, as in Carbonic Acid. Oxygen separately promotes putrefaction more than any other gas; and, curiously enough, when mixed with Nitrogen, as in atmospheric air, its activity is greatly increased. Dry air retards or arrests putrefaction, as we see in the preservation of bodies in sandy deserts, which is sometimes remarkable. A raised cement of an acts on the same way as dry air, causing rapid evaporation.

Thus these three circumstances, a fit Temperature,
sufficient moisture, and access of air, or of oxygen somehow, may be called the "essential conditions" for putrefaction.

2. Period, Place, & Mode of Interment.

Period. As putrefaction goes on much more rapidly in air than in the ground, so the longer interment is delayed, the more are the putrefactive changes. "If during summer a body be exposed for five or six days before burial at the end of a month, it will have undergone as much change, as it would have done at the end of seven months, had it been interred at once" (Ofuila).

Place. In dry elevated situations putrefaction goes on slowly; and in low swampy grounds rapidly. It is retarded by a dry absorbent soil, but accelerated by a moist one. Thus we find it slow in sand or gravel, and there also we seldom meet with adipocere. It is accelerated in mead of clayey soils, and in loose mould, especially when impregnated with ami-
nal or vegetable matters. Peaty soil affords an exception to this, as it is clearly one of the causes of retauration.

Mode. "The deeper the grave, caution paribes the slow or the putrefaction." The more completely a body is protected from the air, the slower it goes on, as by abundance of clothes, or in a close coffin; but it hardly goes on at all in an hermetically sealed one. As it rule it goes on more rapidly when a body is exposed to the soil, than when buried in anything.

3. Age, Sex, & Condition of Body with Cause or Kind of Death.

Age. Other things being equal, we find that children decompose faster than adults or the aged. Dr Guy says that the aged go faster than adults.

Sexe has really very little influence. Offilia certainly says that female putrefy more rapidly than males, but indirectly ascribes it merely to the greater amount of Adipose Tissue. This agrees with the uncontroverted fact, that fat persons putrefy more rapidly than
those that are lean. A Corollary, however, is, that females after delivery putrefy very rapidly.

**Condition of body with cause or kind of death.**

Upon this the variations in a great measure depend. Those who have been killed or die suddenly, as a rule, putrefy faster than those who have died of Disease, "from the predominance of the fluids over the solids." An old view was that it was rapid in cases of poisoning, which, however, is not generally true, though true enough, with reference to Narcotics. It is quite the reverse in regard to Arsenic, Phosphorus, the mineral Acids, & Alkalis. With reference to the Mineral Acids, after poisoning by them, Sulphuric especially, according to Caspar, the cells resist putrefaction for some time, owing perhaps to the acid neutralizing the Ammonia of decomposition. Most Animal & Vegetable poisons have probably no effect either way, except from the sudden death usually ensuing. As a rule, it is more or less rapid; according as the body is more or less filled with fluid. Thus evidently rapid after deaths from acute Disease; it as evidently
slow after Haemorrhage or Chronic Disease, unless complicated with dropsy. "Retarded after death from inhaling Carbonic Acid", says Dervigie, who has related three cases, which certainly seem to prove this.

All these observations may be applied to parts of the body as well as to the whole; for limited parts, filled with fluid at death from various causes, as inflammation, congestion or dropsy, or it may be, from wounds or bruises, putrify faster than other parts healthy and entire. Indeed, it is a well known fact, that putrefaction commences soon, and runs a rapid course in inflamed parts, bruises, & the edges of wounds.

We have good reason to believe that decomposition takes place with more than usual rapidity in animals driven hard after a meal, and thereupon dying suddenly; and in men dying during violent execution. Under this head there are one or two particular points which may be looked to —

State of thinness or obesity — this has a decided
effect. There is no doubt that fat people putrefy the most rapidly.

State of Mutilation or Integrity.— It goes on much more quickly in cases which have a solution of continuity, contused parts, ecchymoses, etc.

Temperament.— This has also been a subject of investigation. Devergie says: “no doubt, with reference to the constitution, that individuals of different temperaments putrefy with different degrees of speed.” Any difference at all events, must be very minute, it needs not be entered into.

4. **Medium by which a body is surrounded.**

This exercise a most important influence. We will enter into it more fully at a later period under the head of “Comparison of the different Media”, Chapter IV. As a generality Dr. Duy says that “purification is retarded by the different Media in much the following order —”
1. Water of Common Sewers and cesspools.
2. Common Water.
3. The Earth (in different degrees according to the character of the soil).
4. The Air (in different degrees according to its temperature, moisture, etc.).
Chap. III

Order of Putrefaction in the various Organs.

The conditions which modify the rate of the putrefactive process having been discussed, the Order in which the different organs of the human body are invaded, and a few particulars regarding that invasion, may now be entered into. Whatever be the medium, this is very uniform. First, we will give a list of them, percutaneously, as they are affected:

1. Trachea & Larynx.
2. Brain (of infants).
4. Intestines.
5. Spleen.
7. Liver.
10. Lungs.
11. Kidneys.
12. Uterus.
15. Diaphragm.
16. Larger Arteries.
17. Uterus.

We shall next consider these more in detail.
The first 8 may be called _quick putrefiers_, i.e.
both positively & comparatively.

1. Larynx & Trachea. Putrefaction makes
the mucous membrane of a dirty reddish-brown colour,
quite different from that of vascular congestion even
in death from asphyxia. After a time, the thick
green colloquing stage comes on & the cartilages
of the windpipe separating it becomes thoroughly
disintegrated.
2. The Brain of infants. From the laxness of the fontanelle peculiar to this early age, the air very soon gets through, thus quickly favours the assumption of decomposition. Thus it becomes, after but a short time, quite different, just of the consistence of cream, of a light pimply yellowish shade.

3. Stomach. In this a change is noticed to occur in about three or four days. First, however, there is a diffused redness of the posterior wall, which may be found in from three to eight hours after death. This is due to hypostasis. The body is supposed to lie supine; if prone, or in any other position, this redness would of course occur in the most dependent part. When decomposition supervenes, this becomes deeper, and extends over all the organ. Gradually it becomes emphysematous, of a statuesque colour, tinged with bile, and chiefe .

This hypostasis must be distinguished from the redness due to violent poisoning, which dis-
tinction will be assisted by its occurrence on the most dependent parts, whereas poison may affect any part indiscriminately. It is important also to notice that the redness of poisoning is so specifically altered by putrefaction under favorable circumstances, as to make it practically impossible for an expert in a medio-legal case to speak with any amount of certainty upon its origin, whether from any thing applied or from natural putrefaction. Even a naturally putrefied stomach, i.e. its redness, quite healthy at death, and free from any interference afterwards, can hardly be distinguished from that produced by mints alone. In many cases there can be laid down no certain rule, and concomitant circumstances or signs are the usual guides. If there is any doubt, never give an opinion.

4. Intestines. These are affected much in the same way as the stomach, only generally later.
Any particular change or tinge is determined by contiguous part or content.

5. **Spleen.** This organ very soon becomes soft, but even when once begun to change does not go on so rapidly as might be expected, the disintegrating process being comparatively slow.

6. **Mentum & Mesentery.** These remain tolerably fresh for some time; it is generally a few weeks before they show any marked signs of decay. In fat subjects the general rule is followed out, for this part, particularly loaded with fat, goes somewhat faster in proportion.

7. **Liver.** This usually remains firm for many weeks, then gradually becomes greyish green & disintegrates.

The **Gall Bladder** retains its consistence, even for some time after the liver.
8. **Brain (of adult).** First it collapses. It does not completely fill the cranium. There is a green colour commonly at the base. The grey matter goes first and becomes soft; but it is not for some months that it gets different. If air happens to get in, decomposition receives a great impulse in its progress, and goes on no slight degree faster.

The remainder may be called **Slow Putrefiers.**

9. **Heart & Pericardium.** These remain tolerably fresh for a long time. I have seen one in a state of pretty good preservation, after 54 days.

10. **Lungs.** As a rule, these remain without marked change a little longer than the last. They begin curiously to have small Bullae filled with air, perceptible externally, lying immediately under the Pleura. These organs, according to the degree of putrefaction, will be soft, putrid, as of a dark green or brown tinge, or a slightly offensive smell; theserous membrane investing the surface will be raised in large visible blad-
...orders, from which the air may be forced out by moderate compulsion. 

In a medical-legal sense, putrefaction of the lungs is important with reference to infanticide, as simulating the “breathless” condition of the lungs in regard to the hydrostatic test. Taylor says “Lungs of children, which have not breathed, have been born dead, may float in water, from putrefaction or artificial inflation.” To diagnose the putrefactive condition look for signs of putrefaction in other parts of the body, for as we have seen, many organs decompose before the lungs; though Caspar gives some cases in which they seem to go somewhat faster than the ones in which they have been placed here. And again, a most important sign, putrefaction begins under the Pleurae; if we recognize the characteristic bullae. Often, although putrefaction be made out, it does not, of course, render it certain that the lungs are not “breathed.” The diagnosis may often be assisted by puncturing the bullae; when, if from putrefaction alone, the lung may sink. Most, if not all, of the so-called cases
11. **Kidneys.** These remain long after the lungs; they become in time of a chocolate-brown colour, then ruin.

12. **Urinary Bladder.** Present, after a still longer interval the signs of putrefaction that might be suspected.

13. **Aesophagus.** Ruptured, putrefying somewhat like the lungs, time, modified by situation and texture.

14. **Pancreas.** The fascia this viscus of a dark red long after the stomach and bowels are gone. Principally important medically, in affording a guise to the situation of the rescue of the part near in complete putrefaction; as in looking for arsenic in the stomach.
15. **Diaphragm.** This remains almost unaffected from 4 to 6 months. The small capillary petechiae on the serous surface after death by suffocation, of course, must not be mistaken for a putrefactive sign.

16. **Large Arterial Trunks.** The aorta has been found quite distinguishable, 14 months after death.

17. **Uterus.** This, especially if virgin, resists the siege of putrefaction longest of all. Calpini gives a case where pregnancy was disproved, after almost every other part of the body was destroyed. It is a very good diagnostic mark between the male and female.
Chap. IV.

Comparison of the chief Media.

We shall enter into a few particulars with regards to these, not already stated in the view previously given of the subject, drawing occasionally our conclusions & deductions of comparison, when obvious. We will take the following Media—Air, Water, Earth, Matter, of Privies, Dung-hills, Lime, & Charcoal—, which comprise almost every medium in which putrefaction is likely to occur, whether accidentally or otherwise, though there are isolated examples of the most extraordinary Media, who, except by a rare chance, might never take place again.

1. Air.

The description already given of "Collequative putrefaction," p. 5, is amply sufficient for any change that occurs under this head. Repetition is quite unnecessary, & to this description we would now therefore refer.
2. Water.

With regard to the particular changes occurring in this medium, Dr. Jurieu is from his position the great authority. There is a capital abstract of his description by Guy, which may be well taken in here verbatim, rather than attempt a more imperfect one.

"The bodies of the drowned are subject, like those who perish by other modes of death, to loss of heat, rigidity, putrefaction in a modified form, accompanied by the formation of adipocere. One of the first changes, which may be seen as early as the 3rd or 4th day, consists in a bleaching of the skin of the hands.

At the end of a week, the body is found supple and the skin of the hands very white.

A week to 12 days of immersion bleaches the backs of the hands and softens and bleaches the face.

At the end of a fortnight, the hands and feet are bleached and wrinkled, the face slightly swollen with spots of red, and the middle of the sternum has a granitic tint.
At the end of a month - the hands & feet are completely bleached, wrinkled, the face slightly swollen with spots of red, the eyelids, lips are green, the rest of the face reddish-brown, & the front of the chest presents a large patch of green, with a reddish-brown spot in the centre.

At the end of 2 months - the face is swollen brown, & the hairs are but slightly adherent. Much of the skin of the hands & feet is detached, but the nails have not separated.

At 2½ months, the skin & nails of the hands are detached, & the skin of the feet, but the toe nails are still adherent. In the female, reddish discoloration of the subcutaneous cellular tissue of the neck, of that which surrounds the nares, & of the organs contained in the cavity of the chest; partial saponification of the cheeks & chin, superficial saponification of the Mammae, the Asciilae, the Anterior part of the thighs.

At 3½ months... The skin & nails of the hands & feet
completely removed; part of the hairy scalp, of the eyelids, of the nose, & the skin of many parts of the body destroyed; the face & upper part of the neck & ascillae partly saponified.

At 4½ months, nearly total saponification of the fat of the face, of the neck, & of the ascillae & anterior parts of the thighs. Commencing early induration of the thighs; incipient saponification of the anterior part of the thigh; opaline state of the greater part of the skin; almost entire separation & destruction of the hairy scalp; calvarium de-nudecd, & beginning to be very friable."

Denigrie says that these criteria have been applied very successfully to many bodies with a view of determining their time in the water. Much more precise rules can be laid down with regards to water, than air or earth, from the greater uniformity of the temperature. After 4½ months, no fixed rules can be laid down. Denigrie further continues:

"The foregoing description applies to bodies immersed during Winter & Spring. Bodies immersed in Summer..."
undergo the same changes much more rapidly. Thus 5 to 8 hours of immersion in Summer = 3 to 5 days in Winter; 24 hours = 4 to 8 days; 48 hours = 8 to 12 days; 4 days = 15 days. Thus on the average the same changes take place in Summer from 3 to 5 times as rapidly as in Winter, or even more promptly than that. The changes in Spring and Autumn are intermediate between Winter and Summer.”

The evolution of gases goes on as if in air, and the body becomes quite blown up, called “putrefactive emphysema,” which occurs in from 6 to 8 weeks in Winter, but in Summer in from 13 to 15 days, or perhaps sooner. This makes the body buoyant, in which case they sometimes come up suddenly.

Putrefaction in Water is retarded by depth, natural coldness, stagnation.

It is important to notice particularly that in putrefaction in Water, the green colour of the Sphacel-mis commences on the Sternum, face behind, before the Abdomen. Ofila performed some curious experiments in connection
with this - he put into water bodies which had already become green on the abdomen. This disappeared! Thus perhaps in water the abdomen becomes just green as usual and then disappears. There is one thing important which must be attended to viz. the time which elapses between the removal of the body from the water and its examination, for it may be much changed, if this is of any length.

As the body goes on decomposing, we next have putrid breaking down of the tissue in the water. Some of the fibrous parts become dry, round holes appear in the discoloured tissue, which coalesce to form erosion. There is a deposit of Carbonate of Lime on the hair bulbs. Lastly, the soft parts are destroyed, the Bones separate, the body is lost.

Again, as we have seen, Saponification may take place, commence about the 3rd or 4th week. When wholly converted into Adipocere, bodies become a ghastly white appearance, but nevertheless retain their form.
so as occasionally to admit of identification.

With regard to the subject of identification, there have been new and important investigations made lately by Dr. Richardson, with the object of restoring partly to its natural state a body, which has been lying for some length of time in the water, of which the features are quite incomparable. The process is not yet perfect, but his principles were as follows - He injected the Chlorides of Zinc and Iron into the vessels, as the colouring matters, to reduce the dark colour, which is one of the principal hindrances to the features being made out. (See Lancet, 18th May, 1863) for particulars. He has been wonderfully successful. In any attempts of this sort, it is always safest to take out the stomatch first, in case of vitriol during any process into the tissues of the body.

3. Earth.

The changes here are essentially the same as in air, unless it is very moist, as we have seen, dry soil rather promotes it. Deneighe has divided putrefaction
in Earth into 5 distinct periods, as follows:
1st. Softening of the tissues.
2nd. Their colboluation into green or reddish-brown.
3rd. Development of gas, in greater or lesser quantity according to the season.
4th. The greater humidity of the tissues.
5th. The destruction of both soft and hard parts, their transformation into dust, etc., which infiltrates itself gradually in the ground.

Comparing now these 3 different media, Air, Water & Earth, we extract the following observations of Caspar:

It seems, therefore, more expedient to establish a general ratio for all the 3 media, Air, Water & Earth, along with which may lie regarded the influence of the above mentioned cooperating agents (Air, Moisture & Temperature), with deductions in the one case, & additions in the other, made accordingly.

The course of putrescence is in every case the same,
only modified as to its rate, that not only by the media, but also by all the three qualifying circumstances already mentioned.

"However difficult such a general ratio, yet my experience says as follows—

At a tolerably similar average temperature, the degree of putrefaction present in a body, after lying in the open air for 1 week (month), corresponds to that found in a body after lying in the water for 2 weeks (months), or after lying in the usual manner in the earth for 8 weeks."

4. Dunghills.

Here putrefaction is very rapid from the heat. According to Caspas, in 24 hours the epidermis is detached, and the cutis softened; in 24 more nearly disintegrated. This perhaps hardly so fast as this, while it is very quick: which may be illustrated by the following experiment from Af-fila et Lesueur's "Oeconomies Juridiques"—

Experiment — "The leg of a foetus, dead on the 5th of May, was
placed in sewage on the 5th May at 10 in the morning. On the 7th, nothing remarkable. 8th Odour strong, especially at the exit of the intestines. 9th Colour mingled with green. Epidermis is beginning, the odour of purity action is well marked. 10th the epidermis is completely raised, colour present on the upper part of the limbs. 4th Odour at the opposite part; the skin is not sensibly softened. 11th the green colour is more generally spread, the muscles are comminuted to soften in the weight of the cuts. 12th Slight separation of the skin; the odour strongly ammoniacal, muscles of a leaden grey. 13th These characters are well marked. 14th Colour orange, colour very liquid; the skin can be drawn enough the form of a sheet. 15th the muscles are reduced to a sort of purplish mass at the interrupted parts, although they preserve their red colour. 16th Odour very fluid; more considerable softening of the muscles. 17th Odours, lead of an orange-red, partly filled by the external surface, thread as threads, the muscles are reduced to fragments. In a syringe of purity action, the femur is detached. 18th The skin only remains of which the orange colour is less deep. It is more watery to go within the external surface. 19th Portions of the most skin are easily detached on soaking unto a decaple. 20th May only fragments of skin are found.

This will give a very good general idea of the state of putrid action in this medium, and also serve to illustrate any peculiarities in its nature for press. We may now pass on to the next medium.
5. Privies

New born infants especially are "browned" in the. There
has been a dispute as to whether this medium stands or accelerate-
putrefaction. One author says it does, another the opposite. The
chief peculiarities are "bluish-white colour of the skin and
putrefactive emphysema of the lungs particularly well mar-
ted." Desplaces performed one experiment with regard to
the effect of the air of beans, with the conclusion that it na-
ther extends putrefaction. Ofila gives another of the same, in
which he propounds the opposite doctrine, that it acceler-
et. I have had no opportunity of reconciling, or deciding
between, these two statements. After all, it is of no practical
importance. With reference to decomposition in the matter
itself of privies, to give a general idea, we take the following
experiment from Ofila's "Exhumations" (which at the same
time may be well compared with the one extracted, un-
der the head of "Dunghies.")

Experiment. "The leg of a fatten steer on the 5th of May, was
put into a basin filled with the water of beans on the 6th of May
at 10 in the morning. Nothing remarkable. After three days
the..."
Violaceous, especially the muscular portion part.

9th. Epidermis begins to be raised by firm pressure with fingers. Color the same.

10th. All in the same state. 11th. Same. 12th. Epidermis is detached a little more easily. 13th. Same. 14th. The skin lacks well. The structure of the muscle is not changed; the bands worked whole, the color of the muscle of the thrush. 15th. Some part of the muscle is yellow & detached by the epidermis; slight softening of the muscle. 17th. The whole piece is of less extent, the skin is of a cream color. 18th. The epidermis is detached more & more; there is disengagement of gas from the cut edge. 19th. Washed with hot water; the skin bleeds. Disengagement of gas by a slight pressure; the skin continues to be detached. The fat which is uncovered by the wound presents the appearance of softened soap. 21st. The skin is detached more easily from the fat; the color is in the same state. There is but a trace of corrosion perceptible as that already taken place on the limbs in well-water (a corps mortuus experiment), the muscles are more softened than the skin; the latter is yellow, slightly transparent, detached by a glance with the scissors. 23rd. Stunning of the head of the fowls, the skin is evidently clumsy. 24th. The muscles are little softened, the skin shows only a trace of corrosion, but it is very easily detached. The subcutaneous fat of a very yellow, in certain parts, appears transparent. 29th. The same. 31st. The skin is entirely detached. Softening of the muscle (value) is considerable also in a part of the body placed in unrefreshed water, a corresponding experiment. 52nd. The cartilage are sensibly softened. The fat appears to be resorbed. 6th. The muscles still of a yellowish color, are more softened; the skin is completely detached. Thro' elongation. 13th. There are found only shred of reddish tissue, which are attached from the muscle, the skin color, & very soft.
We will now give the conclusions of the principal authorities on the subject with reference to those Media gone over by Guido Ugo and Isouard—("Exhumation").

The experiments which precede allow us to conclude:

1st. That putrefaction goes on more rapidly, other things being equal, in dung than in water, the matter of peat, and the ground.

2nd. That of the different Media, the Earth is that which retards putrefaction the most, if the interment has been made at the depth of some feet, if the ground has not been watered. For, if animal matter has been buried only 5 or 6 meters in depth, in our experience, if it has been watered, it would putrefy quite as quick as in stagnant water.

3rd. That in the matter of Dung, putrefaction is less quick in its progress than in water, although it takes place more rapidly than in the Earth.

4th. That, after dung, none of these Media favour decomposition more than Water, especially if often renewed.
50. That wet air hastens putrefaction of animal matters more than any other agent. Whilst, if it is dry, putrefaction stops at the end of a certain time. They say also, "that water renewed occasionally, hastens putrefaction more than stagnant water."

Descrue conclude—

"Putrefaction is always slower to develop itself in water than in free air. It is difficult yet to settle the question as to whether it manifests itself more or less rapidly in running than in stagnant water. The experiences of Mr. O'Kelly show that saponification takes place more rapidly in water renewed. As for me, I establish a distinction on this subject: I believe that the decomposition which results in the development of fat & reduced into a mass of putridity takes place much more rapidly & more easily in stagnant water, whilst that which results in saponification takes place more rapidly in water renewed. This opinion is founded on the observations which I have made on the
Drowned. The water of Privies retards putrefaction still more efficaciously; Saponification takes place more easily in this liquid."

I don't see why saponification should take place, as Duregie says, more rapidly in running water.

With reference to decomposition in Privies, I have made a few experiments, as follows—of which the following is an abstract—

Note. These experiments were made with, on the one hand, utter inexperience, & consequently a waste of material & rather irregular observation; but on the other hand, were perfectly unmarred by any previous notions entertained on the subject.

**Experiment I**

These experiments were unfortunately made by gas-lights.

In a bath, 20 inches long, by 15 inches broad, feces obtained from a public privy were placed; with a tolerable admiscution of urine. This was placed in a clamp cellar, & 4 cans; the temperature being as nearly resembling those of a Privy as possible.

A woman, at the full time, which had precociously died a fortnight (?) before birth, according to the history of the case, but showing no signs of true uterine action, was thrown into this bath, first and afterwards covered.
Appearance on Interment. 18th September 1843. Temperature of Celsius 52°. The child was covered pretty generally with the common decedent. There was a good deal of typhus ulcers on the thorax, back, feet, hands, cheeks, thighs, & a slight amount on the abdomen, superrior & inferior extremitie, back of chest. The cuticle was peeled off, papyraceous, from the back of the wrist of the right superius & posterior, the front of the wrist of the left, also more considerably from the inside of the ankle. Plains in general to be taken out & immediately cut off the umbilical cord remaining little attached to the extent of about 6 inches; the hair nearest to the cuticle appears quite free, the hair on some parts distinctly with blood, the cuticle half clean some signs of poliomyelitis, being quite yellow in the bones & ascension - not even the cuticle removed. A little mucous membrane trickling from the anus. The labia minora are larger than usual in the child. Healthy female child of some age.

Observation 1. 21st Sept. after 3 days. Found child unwell, so as to be entirely covered except the posterior part of the lips.

General External appearances: the child has a good deal of Yami coloration. The trunk of the body has become more light & transparent. It appears that the skin is beginning to come off the trunk. The canary yellow has disappeared from the back except the inferior extremitie. We will take the parts in this order from above downward: - Head. The head remains nearly the same. The eyebrows are more swelling & glossy looking. In vision, the color of the eye is quite distinct & visible, but the eyeball appears to have undergone internal disease. Sclerae, having quite lost its characteristic whiteness. The nose is of a pinkish color & a thin redish scum is exuding from the nostrils. The lips are slightly swollen. There is a very slight presence of the cuticle on surface. The mucous surface is of a very black brownish red color. A little appears on the face & little. The tongue present, the same appearance as a less marked manner. The mucous membrane
is partly separated from the ground in a whitish lustre, leaving the
absent margin of a broad pink. The undersurface of the tongue
then often shows one in the same condition, also the posterior,
with the exception of a few small holes reported here before. (It may
be worthy of mention that these peculiar facts on Scandinavia for
the distinct separation of a white line at the junction of the middle
foot to the undersurface is well exemplified there: the cuticular
margin of a particular colour is for about 2 days oribr [sic] attached. The
black spot of the edge makes it all the more apparent). Check, second-
ly, but rather hopping. The ears as much the sounder the former
of the tongue. The sides margin of the neck are of a similar
colour, those of the left ear being a shade darker than the
right. The white area back of the head remain much the same,
with the head being undergone no change. The back is a whitish appearance all around, with a slight amount
of the posterior behind. Squeezes footless— a gum at bottom
look, the coronal region being whitest. The upper arm is of a more
coolly blue, the forearmette darker, especially on
the anterior aspect. When the cuticles were rubbed off from the
back of the lower fine texture there is a brownish green.
In fact, almost wherever the cuticle has been rubbed
off any part we have this appearance. The paws of the
hands fingers are round are of a very pale greenish white
tinge, the nails are quite distinct for a lived tint. The cuticle
has been rubbed off to a greater extent— from the left— on
nearly all round, from part of the back of the hand.

Throat appears entirely - its circumference (now unfortunately taken for
the first time) is 11 inches about the 5th kid, five below the nipple.
In the front cap, the lower part, it is hopping, with a trace of pink
rose the sternum sternum, which however may possibly be the
narrow, constricted extension being. The nose line is distinguish-
coolly but faintly concurred by the same coloured area adherent.
The paws and toes are distantly second, being from a dull violet
purple on precisely for purification the last appearing those of
innate blue, extending downward and below the umbilicus,
and similarly terminal it. The circumference (now also taken for
the first time is 11.5 inches). The company line of the thorax is
situated down upon the abdomen, subcircularly towards the under
oral organs of generation into a faint colour. This obtains partly
well all over while the species of a slightly opaque & iridescent,
long by 1 broad, situated posteriorly about the left-side
about 3 from the umbilicus, which has nothing particular to
account for. The umbilicus cord now presents well marked
surface of faintly calcium changes, throughout the whole extent,
being of a yellowish green with a good deal of blood still in the
decidua. It is now entirely low-lying and slightly lintency. It has
some bluish. It may be remarked that the blood seeping out
from the end is remarkably fluid of a bright yellowish, almost
clear liquid. There is lintency to left. Notable traces of generation
the mostly medium & fat are yellow, are of a dark greenish color.
The lateral minor nerves are somewhat channelled up & appear as three
cylindrical or loosely lamellar bleaches cellular, which appear due
cells in a blackly defined margin at the commencement of the
muscle, surface on the inner aspect. The muscles surface is of
a reclusive yellow, becomes the gradually approaching the state
of that of the envelope.

resent volition - the thighs are
both stained on the inner aspect, posterior they are copper,
practically involving on the outer aspect. The legs are partly
prickly, slenderly coppery; the cuticle is in a great measure detached,
what is worn is very nearly detached, leaving the brownish green
line of the legs more noticeable as usual. This condition being on
on the angulus adductor. The soles thus are bleached, but the
muscle is still from the adhesive. They are put-like; the branch-
the branch are entirely pendulous. Back: Still a good effect
of the ventral column. It is brownish face along the late
prickly, subcircular into punk at the sides, the buttocks (who,
be it remembered have been before being minimus) appears
shinewo up. From the left, the cuticle has been cutting renau-
red during extraction, leaving a bright reddish brown color
beneath, different from any other seen on removing the cuticle.
The minimus is standing out in greater quantity than before,
it's perfectly bleach.
Observation II. 24th Sept. After 6 days. Before extraction the body had sunk to its to the anterior cornua. Temp. 55°.

Genital Appearances. - The body is now very loose, the ribs and abdominal walls are pushed out. There is a slight amount of amniotic sac in some parts. Heart: remarkable is the same. Heart, while the body is still more furry appearance, the cuticle is softer, darker, more distinct. The nose has changed from pink to a dirty white, lighter coppery. The body is more white than the cuticle. The body is more yellow. The cuticle is the same. The surface of the body is still black. The black pigment is less apparent, but still so distinct. The distal part of the tongue has lost its former color, to a more or a mixture. The lining membrane is still separated as it is from the gums, though it is now more or a mixture. The lining membrane is still separated as it is from the gums. The mouth, now free from the tongue, has now the entire surface with a tendency to become black. The cuticle is more separated from the tongue, leaving the black area of the cuticle. The cuticle of the skull is now very easily separable. The skull is now generally coppery except for the depression posteriorly and anteriorly. The skull is now generally coppery except for the depression posteriorly and anteriorly. The cuticle is now more easily separable. The cuticle is now easily separable. The cuticle is now easily separable. The cuticle is now easily separable. The cuticle is now easily separable.

Thorax. - Circumference = 11 3/4 inches. The chest wall is now separable from the fingers. The chest wall is now separable from the fingers.

Abdomen. - Circumference = 11 3/4 inches. The chest wall is now separable from the fingers. The chest wall is now separable from the fingers.

The muscle is a uniform reddish brown. The body is now very easily separable from the fingers. The body is now very easily separable from the fingers. The body is now very easily separable from the fingers. The body is now very easily separable from the fingers. The body is now very easily separable from the fingers. The body is now very easily separable from the fingers. The body is now very easily separable. The body is now very easily separable. The body is now very easily separable. The body is now very easily separable.
above bronch, on discussion — perhaps, the may account for the colour, especially as a lighter shade appears gradually over the margin, than over the fairer or more solid part. Hence it seems the surface is not yet peeling, but the latter has become very transparent, so that the vessels, especially the veins, can be easily seen. Blood has become thicker. The external organs of generation are much the same. More, perhaps, major are darker in shade. The epistle, in fact it appears, the whole, often furred, and are peeling off. The mucous surface is equally as dark as used to be, but the mouth at the first observation. When examined, it presents much the same character as the epistle, the epistle becoming more furred, more company. The tips of a peach-brown. The Blantna surface of the feet proximaa dirty white or bluish below, on the right a little more than on the left but the epistle, not yet peeling off. The feet, the posteriorly has more nearly, as appears. (Back) epistle more company. Heads reddish brown — epistle peeling off, especially along the epistle. But thick. It is worthy of remark, that while the epistles were peeled off, the epistles examined at last observation found to be a bright red, having been prior to that exposed to the air, but hiding been re-heated, and then covered also with fresh ooze, it the epistles how more for the usual greenish-brown hue of the extremities, the remaining tips of red making it clearer, pure tracheicicarcar. The forehead is now becoming appearing. In making an incision on the forehead, transversely down to the bone, the muscles are seen of a bright red, the cutaneous tissue of a faintish yellow.

Observation III. 28th Sept. After 10 a.m. Temp. 54° F.

General appearance. Epistle is peeling off from many part more or less with the exception of the head, bright. The tip is cutted off, especially the thorax. The junction of the end with the cerebral cartilage is seen at an angle. Head. Face, forehead tare part surrounded by hair are of one uniform prem. lobe.
coppery colour... tigga. Legs are nearly black - tigga blackish. Wing... Greenish. Forehead coppery colour. Ears... Greenish. Forehead coppery on reddish. Brown where... Appendage as large as the head. Abdomen... Venter... Coppery... - a shining colour. Conspicuum = 11/2 miles. Unbroken cord quite flakes. Several sandy areas. Hill. Ext. Area & Generation. Many venus... Fabric, maps... with the... Circuit... on coppery. Circuit has come off the fringes, leaving the Circuit. Hindwing surface of a dark pink. Abdomen... Cuticle... The cuticle of the inner surface of the tibia has preserved a remarkable white colour. Especially the feet... has now separated in a great measure from the leg. Tegumen of the feet, leaving Cuticle greenish-brown. It has also more freely separated from the plantar surface of the foot, especially from the tibia. Back... Cuticle... mostly of all... A shining colour. Feet... Not yet nearly the same. There is now more corniculate. Tegumen of the forearm, white mixture was made up about the same. Red... White... except to the end... the circuit turns greenish-brown moment, the tibia of a deeper brownish-blue.

Observation II, 2nd October. Activity 14 above. Temp. 54 F.

Along with the following brief observation the accompanying water colour sketch may be referred to, which... Inundated from various moisture and circumstances, can only be a general idea of the appearance of the body, many details being common that faculty true perfect.

General Appearance. The Circuit is still on the face. A brown or coppery colour, also on the head. The eyes are still... so round as they are, the reason that motes... The Circuit is slightly raised from where it begins. It is in a queer curve... off the superior extremites, leading the cuticle greenish-brown.
Observation V. 8th October. After 20 days. Temp. 54.

The body has again started to the surface—so do to expose the right side of the trunk, the right upper arm through a rent in the matted skin.

General appearance. The whole body is remarkably plump. Euphrase has come off everywhere except the head and the hair, the nerves, the anterior aspect of the spine. Euphrase is very generally felt. On lifting up the body the pustules contain this serous fluid from being so much plugged out. Head. The manipulative change is distinct. Euphrase is everywhere except the clavicles, where bone and muscle are swollen. The face is puffy with large, clear, red spots. The skin is very shiny and there is a brownish tint, as also the tongue. The mouth is quite distending. The lips are round and exceedingly puffy, as far as pustulation can reveal, wound by pustules. The tongue is red and can feel. The teeth are as thin upper portion by the tension of the mastication, pulled from their position on the sides of the head, red and transiently put away. The neck, present, is the same appearance. Euphrase sutured. Cut.
ura of brownish pink, but on the rest of the arms of a pinkish yellow, when it has been exposed to the air for a few weeks, or even at places, especially when the chitin of the abdomen is left bare, the back of some of the fingers, front of the palm of the left hand, the inner elbow, yellowish brown or dark. 

Index: abdomen can be distinctly paler on looking at it near, as they are both uniformly yellowish brown. They have a general pinkish brown tint, with flecks between the head and the nipples, the pink shade coming at other places. The right side where it has been exposed to the air is darker, with pink spots with pink streaks; elsewhere, the Umbrellalae can be distinctly seen, and some seem to be present, especially from the abdomen. 


Observe: the seed produces a pinkish yellow, fabric of the dome being a darker, or dirty pink, it seems to be covered with a dark brown. 


Observe: the surface of the newborn is like a brownish pink. The upper surface of the newborn is like a brownish pink. 


Observe: the newborn is like a brownish pink. The newborn is like a brownish pink. 


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on the parts of the child exposed. Even after breeding they are seen swarming out from the manner of the exposed parts. The exposed parts are of a clear, blackish-brown, very dark at the head, lighter at the back. It is worthy of remark that there is a sharp margin here. The parts exposed (the parts covered, the the muzzles have not their usual scene of elaboration, they being actually in some places irregular, seemingly made by them. No muzzles are so seen on the parts which have been covered. All these cover the head or an appearance like saddler's leather. Here, the hair scales is clearly separated, changing oftentimes to somewhat the nose are starting from each other, being balled together by the latter. The muzzles are visible out of it at the line of junction below mentioned. The prehensile nose which part of the scales are of a beautiful pink, seeming also better preserved than other parts. The latter are of the same size or a dully yellow, the conjunctiva has become distinct? For a dirty white. The nose is luminous in its locale, except the opening of the anterior nose. The nostril quite channelled, tapers to a single extreme, the cheek are very firm to the touch. Superior Extremities of a uniform dirty yellow, the lips is framed outward at the junction below. The nap has a similar appearance at the cerumen region, the subnasal tapers, which seem to designate of the cart are very like, but in colour, more transparent to dirty end. Muscles wonderfully hidden, where concave, but whose expose are pretty far gone, leave solid fleshable. Shunt! the toes have everted from both sides of abdomen. The very anterior toe seen besides the natural opening is at the junction line before said, under the upper Extremities, from what the gas is most likely escaped. Though it appears to be taken into rather than forth. An incision of distance 11.54, almost of the abdomen = 11. There is a preceding luscious peculiar part of the Roper's place region, which was surrounded. The rest of the trunk anteriorly is of a dirty yellow. The underbody end is quite empty of fat. The subnasal region of Generation are completely white, as well as in colour. Inferior Extremities are uniformly dirty yellow, leathery, found a radius well preserved in Livers of Rovers. Here is slight expectation about the region of the nose, especially before it, whilst can be felt in
no other pair of the body. The back wheel has been completely exposed, is of a uniformly blackish-brown, surpassing almost the usual character of purplish brown. The buttocks are yellow with patches of blackish-brown. The arms, like the thighs, is quite Chapelle, looks as if it had been from the want to grow.

Today to some change was present, the buttocks of the body captured allowing the arms to separate. Respect the time mate, which in its turn is taken fixed at one point, allowing the cerebral substance to escape. Whichi take is like this even clear. In preparation, the whole man seems equally clear.

This was the base observation made in this experiment. Simply it was been some but confused from its incomplete preparation from airs, but the distinction between the petiole clear, there is not been greatly well pointed out.

**Experiment II**

This was performed on a remarkably strong healthy male child, born at the first time. The result were particularly the same as in the last. It would be perfectly useless to enter into detail. The lymphoma soon became just like a Beaver, much swollen, perfectly three wise with am.

**Experiment III**

The result have also plainly connected with the other two, through any means initiated by the experiment being performed on an ill-developed 7 months, female child which had some appearance seemed of this ill determination (I). Must be looked upon only as confirmatory to the other two.
From these experiments, without entering into details of conclusions, I am led to believe that the 
real matter of Sivius retards purification even more than the 
water of Sivius, with regard to which most previous 
observations seem to have been made.

In fact, we would place the media already gone 
over in the following order, as favouring purification:

1. Dunghills.
2. Atmospheric Air.
3. Water.
6. Earth.

Lastly, we may very briefly notice lignite or 
coal, as having been media of purification.

Lime

This substance has been long, especially popularly,
thought to hasten putrefaction, but this is an error. Taylor says that quicklime neither retards nor hastens putrefaction, but has only the effect of absorbing the gases, preventing effluvia. Sir John Davy has the same opinion.

**Charcoal**

This, especially if freshly burned, excretes putrefaction and also absorbs the fetid gases. 50 or 60 times its volume can be condensed within its pores. It produces an ammos substance, a kind of mummification.

**Finis**