Outline Study Course in Marxian Economics

Based on Volume I of "Capital" by Karl Marx

Price 50 Cents

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This Outline study course in Marxian economics is offered as a help to instructors of study classes on the first volume of Marx's "Capital". It may also prove to be of value to students of such classes. The Outline attempts nothing more than to suggest procedure, to eliminate a certain amount of preparation and to allow for elaborations by the instructor in each session as well as in the study course as a whole. The Outline has already proved to be of some value in classes on Marx's "Capital" arranged by the Groups of Council Communists in the United States, and it is hoped that others may also benefit from it.
SESSION ONE

Before proceeding with Session One the class should be organized and the following reading assignment given:

Author's Prefaces to the first and second editions; Editor's prefaces to the first English Translation and to the fourth German Edition (Kerr Ed.)

The ultimate aim of Marx in writing "Capital" was to lay bare the economic law of development in modern society. He discerned the dialectical development of the contradictions in the capitalist system of production and was able therefore to analyze scientifically the manifold forms of capital, from its cellform—the value concept, to its most intricate financial ramifications.

It is known that "Capital" is an application of the dialectical method of thinking to Economy. Marxian dialectical materialism has four principles:

1. Think concretely, for everything is concrete.

2. Everything must be studied in its movement and development, for everything changes continually.

3. Wherever contradictions appear, it is necessary to see their unity.

4. We must seek the contradictions in the processes of nature and society, for everything is put into motion by contradictions.

Nothing is at a standstill. There is nothing static in nature, society or men. Society has its own laws which change constantly. Each positivo has its negativo; each thesis has its antithesis. Development takes place through the negation of both:

positive......negative
thesis.........antithesis

This process illustrates the negation of negation, out of which develops something new: this is called the synthesis, which incorporates the material facts of thesis and antithesis, though now in different form.

The process itself illustrates the turnover from quantity to quality.
Thesis: Capital
Antithesis: Wage labor
Synthesis: Communism

The quantitative growth of the class struggle brings about the revolutionary change to the new society where there are no capitalists and no wage laborers but free and equal producers. Communism thus is the synthesis.

The capitalist class claim there is only a quantitative difference between the rich and poor - "Some people have more money than others." But this quantitative difference implies also a qualitative difference: the capitalist class is the exploiter, the workers the exploited. (Explain and illustrate).

Quantitatively, one stone is but a stone, one hundred stones may comprise a wall and then ten thousand stones may allow the building of a house. From the quantitative proportions of a hundred stones and ten thousand stones may evolve the qualitative aspect of wall and house. Sociologically, a hundred rebellious men are not a menace to the capitalist class; a hundred thousand rebellious men, on the contrary, may constitute a revolutionary force.

Marx found the motive power of sociological development in the class contradictions to be the product, manifestation and the changing activity of the development of the productive forces.

In laying bare the economic laws governing capitalist production, Marx's procedure is twofold: first, he isolates in its order each important feature of the productive process; second, he retraces his steps; that is, his analysis of the isolates, weaving into his pattern all minor yet essential factors and develops in this way a "complete picture" of the capitalist system of production. "From the concrete to the abstract to an understanding of the concrete."

A thorough understanding of the real nature of capital is arrived at only by a scientific analysis of capitalism. However, this is not an easy task, for many factors; important and unimportant, obscure the value-form of human labor in capitalist production. Only a knowledge of the inner laws that determine the present social system's development will enable us to see through the smoke screen of capitalist ideology.

Reading Assignment: Chapter I, "Capital" (pp 41 to 55).
SESSION TWO

Recapitulate with a short talk on the proceedings of Session One.

COMMODITIES

"The wealth of those societies in which the capitalist mode of production prevails presents itself as an immense accumulation of commodities, its unit being a single commodity. Our investigation must therefore begin with the analysis of a commodity." (p. 41).

What is a commodity?

"A commodity is, in the first place, an object outside us, a thing that by its properties satisfies human wants of some sort or another. The nature of such wants, whether, for instance, they spring from the stomach or from fancy, makes no difference. Neither are we here concerned to know how the object satisfies these wants, whether directly as means of subsistence, or indirectly as means of production. Every useful thing, as iron, paper, etc. may be looked at from the two points of view of quality and quantity." (pp 41-42).

At the same time, every useful thing contains both use value and exchange value.

"Use values become a reality only by use or consumption: they also constitute the substance of all wealth, whatever may be the social form of that wealth. In the form of society we are about to consider they are, in addition, the material depositories of exchange value."

Exchange value, at first sight, presents itself as a quantitative relation, as the proportion in which values of one sort are exchanged for those of another sort, a relation constantly changing with time and place." (pp 42-43).

As use values commodities differ in quality; as exchange values commodities differ in quantity.

One hundred pairs of shoes may be exchanged for an automobile. No matter what may be the use value of a commodity, it can be exchanged with another commodity. The quantitative relations enable the exchange.

There are use values that have no exchange value, such as air, virgin soil, ocean water, etc. but there exist no exchange values that do not have use value. However, as soon as human labor is applied to air, the forests, ocean water, these also become exchange values.

Commodities were in existence before capitalist society.
only after the circulation of commodities had attained a certain degree of development in society could real capitalist production develop.

Articles in the Indian village were not exchanged on a capitalist basis because they were not produced for the market. Whatever surplus the natives had in their community they exchanged. This method of exchange, barter, was the starting point of capitalist development.

Commodity production - the capitalist mode of production - is for exchange, for sale, for the market. Its representatives do not aim to produce the products for their personal use but rather to realize their value in the exchange. (Illustrate).

Exchange values imply a quantitative relation, such as:

One ton of coal for 12 pounds of tea.

This exchange implies equality, yet this equality cannot be explained by the bodily substance of coal or tea. As use values, coal and tea are unlike, but as exchange values they are alike.

"The valid exchange value of a given commodity expresses something equal. Exchange value, generally, is only the mode of expression, the phenomenal form of something contained in it, yet distinguishable from it." (p. 43).

Assume that one ton of coal equals 12 pounds of tea.

"What does this equation tell us? It tells us that in two different things there exists in equal quantities something common to both. The two things must therefore be equal to a third which in itself is neither the one nor the other. Each of them, so far as it is exchange value, must therefore be reducible to this third." (p. 43).

This third common "something" has nothing to do with the natural property of commodities.

The exchange of commodities is evidently an act characterized by a total abstraction from use value.

"If we leave out of consideration the use value of commodities then they have only one common property left: that of being products of labor."

If we make abstractions from their use value we see in the products of labor no longer material things, such as a house, table, book, etc., but only the thing that is common to all: human labor in the abstract.

It is labor in general, regardless of its special form of expenditure that is the substance of exchange value.
A quantitative relation expresses the fact that equal quantities of labor are embodied in - as we assumed above - one ton of coal and 12 lbs. of tea. As the quantity of labor is measured by its time - expenditure, we assume the following equation:

1 ton coal ...... 5 hours
12 lbs. tea ...... 5 hours

If labor time is to serve as measurement, then it must have as its basis the labor time which in general is required for the production of a given commodity.

The labor time of an individual counts as exchange value only in so far as it is the labor time necessary in society. The labor time of all individuals computed gives the average, or, as Marx calls it, the socially necessary labor time.

"The introduction of power looms in England probably reduced by one-half the labor required to weave a given quantity of yarn into cloth. The hand-loom weavers, as a matter of fact, continued to require the same time as before, but the value of their product fell to less than one-half of its former value." (p.46).

Therefore: Commodities in which equal quantities of labor are embodied, or which can be produced during the same time, have the same value.

But from the point of use value the product must be socially necessary, too; otherwise it could not be exchanged (e.g. hats out of style, etc.).

As values, commodities are only definite masses of congealed labor time.

The value of a commodity remains constant if the labor time required for its production also remains constant, but the latter changes with every variation in the productivity of labor.

Example: 1 ton of coal ........... 5 hours (constant)
12 lbs. of tea ........... 1 hour

In this case the equation would be:

1 ton of coal ........... 5 hours
60 lbs of tea ........... 5 hours

The twofold character of the labor embodied in commodities.

"At first sight a commodity presented itself to us as a complex of two things - use value and exchange value. Later on we saw also that labor, too, possesses the same twofold nature." (p.48).

Let us assume two commodities, 1 coat and 10 yards of linen. Assume that the coat has twice as much value as the linen:
linen equals 1 value
coat " 2 values

Because coat and linen are two qualitatively different use values, they therefore represent two different kinds of labor, namely, tailoring and weaving.

Were these two commodities not qualitatively different, not produced by labor of different quality, they could not stand to each other in the relation of commodities. (Coats are not exchanged for coats).

One use value is not exchanged for another of the same kind.

"Division of labor is a necessary condition for the production of commodities, but it does not follow conversely that the production of commodities is a necessary condition for the division of labor. In the primitive Indian village there is social division of labor without production of commodities.

...Only such products can become commodities in regard to each other, as result from different kinds of labor, each kind being carried on independently and for the account of private individuals."

A commodity is a combination of two elements, matter and labor. "Labor is the father and earth is the mother." (Wm. Petty).

If one coat represents one day of labor, then two coats represent two days of labor. With the development of the productivity of labor we might produce two coats in one day.

"An increase in the quantity of use values is an increase of material wealth."

"Nevertheless, an increased quantity of material may correspond to a simultaneous fall in the magnitude of its value. This antagonistic movement has its origin in the twofold character of labor."

**SUMMARY**

Every commodity has a twofold character:

Use Value — Exchange value
The natural form — The form it has in capitalism.

The value can only manifest itself in the social relation of commodities: that is, commodity to commodity.

Reading assignment: pp. 56 to 96.
SESSION THREE

The form of value or exchange value.

We have seen that a commodity's value is embodied in the commodity itself. Under capitalism this value is expressed in the money form.

We must, therefore, trace the genesis of the money form.

Following Marx's method we deal first with

A) The Elementary or Accidental form of value:

20 yards of linen equal 1 coat, or
20 yards of linen are worth 1 coat.

"The whole mystery of the form of value lies hidden in this elementary form. Its analysis is our real difficulty." p. 56

The two poles: Relative form and Equivalent form.

It is not possible to express the value of linen in linen. 20 yards of linen equal 20 yards of linen is no expression of value. The value can only be expressed in relation to some other commodity, e.g. 20 yards of linen equal 1 coat.

Here the value of the linen is crystallized in the coat. The coat becomes the equivalent to measure the value.

In this formula we express the value of the 20 yards of linen but we cannot express that of the coat. The equation, however, implies that the same quantity of value substance is embodied in both, namely labor time.

"The body of a commodity that serves as the equivalent figures as the materialization of human labor in the abstract and is at the same time the product of some specifically useful concrete labor. This concrete labor, therefore, becomes the medium for expressing abstract human labor." p. 67

Relative form: 20 yards of linen = 1 coat
Equivalent Form: 1 coat = 20 yards of linen.

The elementary form of value is the earliest form under which a labor product appears as a commodity.

B) The Total or Expanded (Extended) form of value:

1 coat
or 10 lbs. tea
or 40 lbs. coffee
20 yards of linen or 1 quarter of corn
or 1 ton of coal
or 2 ounces of gold
etc.
Here the comparison of the linen's value is extended. Instead of a single equivalent, as in the elementary form of value, we now have a heterogeneous mass of different equivalents. The extended expression of value is only the multitude of single or elementary expressions.

The next higher form of value is

C) The general form of value:
   1 coat
   10 lbs. tea
   40 lbs. coffee
   1 quarter of corn each - 20 yards of linen
   1 ton of coal
   2 ounces of gold
   etc.

Both the earlier forms of value, the elementary and the extended are unfit to do more than merely present a commodity's value as being distinct from that commodity's use value.

In the general form of value, the values of all commodities not only appear as qualitatively equal; they also appear as comparable magnitudes.

In our example one single commodity (the 20 yards of linen) that is excluded from the rest, becomes now the universal equivalent.

The universal equivalent form is a form of value in general and can be assumed by any commodity.

"The particular commodity, with whose bodily form the equivalent is thus socially identified, now becomes the money commodity, or serves as money." (p. 80)

If gold replaces the linen, we get

D) The money form of value:
   20 yards of linen
   1 coat
   10 lbs. tea
   40 lbs. coffee each - 2 ounces of gold
   1 quarter of corn
   1 ton of coal
   etc.

Gold has assumed the function of the "universal equivalent." It is now money and embodies, like all other commodities, crystallized labor. To produce 2 ounces of gold requires here in our assumption as much labor time as the production of 20 yards of linen.

The simple commodity equivalent form is therefore the germ of the money equivalent form.
The Fetishism of Commodities.

"A fetish is a material object, supposed to possess powers capable of bringing to successful issue the designs of the owner." (Webster's Dictionary).

Why does Marx speak of the fetishism of commodities?

Regarded as a use value there is nothing mystical about a commodity; it is plainly the joint product of labor and nature.

Neither does the mystery come from either of the two factors of the commodity's value - qualitative and quantitative labor.

The mystery lies in the commodity's condition of being a complex of use value and value.

First, the equality of one kind of labor with another is not expressed as such equality, it is expressed only as another kind of equality.

Second, the quantity of embodied labor time is not expressed as such quantity, it is expressed only as another quantity.

"The products of labor become commodities because the relation of the individual labors of the producers to the sum total of their labor is presented to them as a social relation, existing not between themselves but between the products of their labor." (p. 83).

"It is only by being exchanged that the products of labor acquire, as values, one uniform social status, distinct from their varied forms of existence as objects of utility. This division of a product into a useful thing and a value becomes practically important only when exchange has acquired such an extension that useful articles are produced for the purpose of being exchanged, and their character as value has therefore to be taken into account, beforehand, during production." (p. 84).

The fetish character of commodities disappears immediately when we consider wealth production which is not the production of commodities.

Robinson Crusoe knew nothing of value. He recognized useful articles only. To him the means of production were merely instruments of labor.

The same basic laws will be valid in the Communist Society.

Read carefully Section 4, pp 81 to 96. Literature: W. H. Ermott's "The Marxian Economic Handbood" pp. 78 to 90; "What Communism Really Is" Published by International Council Correspondence. Instructor to assign two members to speak briefly on (1) The Four Value Forms; (2) The Fetishism of Commodities. Reading Assignment for Session Four pp 96 to 162.
The Process of Exchange

In the process of exchange there are necessary not only the commodities which are to be exchanged but also the commodity owners.

Commodities, therefore, stand to each other in a private property relation.

To the owner, the commodities possess no immediate use value; to him they possess only value which he hopes to realize through exchange.

Commodities are non-use values to their owners, and use values to their non-owners.

Hence, commodities must be realized as values before they can become use values, but at the same time they must be use values because only as such are they exchangeable.

For the owner of a commodity exchange in first a simple private transaction, second a social transaction of a general character.

To the owner of a commodity every other commodity is, in relation to his own, a particular equivalent, and consequently his own commodity is the universal equivalent for all others. This applies to all commodity owners.

Commodity exchange, however, requires a universal equivalent. Gold, because of its comparative rarity as well as durability and metallic substance, was made the universal equivalent: gold became money.

Money, or the Circulation of Commodities.

"Throughout this work, assume, for the sake of simplicity, gold as the money-commodity." (p. 106)

In this, as also in the following sentence, Marx emphasizes once more that gold is merely a commodity.

"Money, like every other commodity, has to express the magnitude of its value relatively to other commodities. Its value is determined by the labor time required for its production and is expressed by the quantity of any other commodity that costs the same amount of labor time." (p. 106, abridged quotation).

Gold enables all sorts of commodities to express and to compare their values.
We already know what determines the value of gold. However, money is merely an imaginary form whose price depends entirely upon the kind of metal that is money. It could be either gold, silver or copper; or all three at the same time as long as the ratio between them remains stationary.

The desire to avoid fluctuations in the ratio brought about a fixed "standard of price." This standard of price was adapted from the pre-existing "standard of weight," for example, two ounces of gold equal one pound sterling of silver. (The standard Roman pound developed into the modern English pound sterling).

As measure of value, and as standard of price, money is different and has different functions.

As measure of value it is labor time converted into gold; as the standard of price it is a fixed weight of metal.

As measure of value it converts labor time into gold; as standard of price it measures that gold.

Variations in the value or price of gold do not affect its function as a standard of measurement. No matter how the value of gold varies, the proportion of different quantities of the metal remain constant.

A change in the value of gold does not interfere with its function as a measure of value. If the value of gold drops, so does the value of other commodities because the productivity of labor does not occur in one field of production only.

When the value of gold (or price of money) remains constant and the other commodities rise in their value, or when the value of gold drops and the value of other commodities remain constant, then we have a rise in the price of commodities. (It is, of course, assumed here that price is equal to the value and truly represents it).

Under their money names commodities lose every trace of their value relation.

The question "What is money?" can briefly be answered thus:

1) Money expresses the value-price of commodities.
2) Money is a part of the metal that acts as the standard of price.

Circulation

"Then once a commodity has found a resting place where it can serve as a use value, it falls out of the sphere of exchange into that of consumption. But the former sphere (exchange) alone interests us at present. We have, therefore, now to consider ex-
change from a formal point of view to investigate the change of form or metamorphosis of commodities which effectuates the social circulation of matter." (p. 117)

We must realize that commodities (use values) stand opposed to money (exchange value) but that both, as commodities, are units of use value and value.

The metamorphosis takes place in the market.

A weaver for example converts his 20 yards of linen into 2 dollars, and then he converts it into a 2-dollar bible.

The linen underwent two separate conversions, via:

   linen  -  2 dollars  -  bible

The metamorphosis of the linen is complete. The weaver "sold in order to buy."

This process is indicated by the formula C - M - C

The actual result was--

   Commodity for Commodity

or simply

   C ----- C

Let us consider the first metamorphosis, or sale,

   Commodity --- Money

The social division of labor which turns products into commodities also enforces the conversion of those commodities into money.

The weaver, for example, unable to find a bible owner interested in exchanging his bible with 20 yards of linen, must sell his linen in order to be able to buy the bible.

The first phase of the metamorphosis (the sale) is immediately linked with the second phase (the purchase).

   Money  ---  Commodity

The weaver purchases for his 2 dollars the bible.

As seller he exchanged his commodity with gold; as buyer he exchanged his gold with a commodity.

At the starting point the commodity (linen) was not a use value to the owner, but at the finishing point it was.

The metamorphosis is complete.
The total of all the different circuits constitutes the circulation of commodities.

Here is the difference between barter (exchange of product with product) and the circulation of commodities. By barter both commodities go out of existence after the transaction of exchange. In the money circulation the money always remains in the hand of some person. In the process - Linen - Money - Bible - first the linen steps out of circulation and money steps into its place, then the bible goes out of circulation and again money takes its place. Marx says: "Circulation sweats money from every pore."

It is, of course, childish to follow: Because every purchase is a sale and every sale a purchase, that by this process we have an equilibrium of sales and purchases. No one can sell unless he has a buyer, but no one is forthwith bound to buy because he has just sold. He can keep the money and can wait to buy as he pleases.

If the interval in time between the two complimentary phases of the complete metamorphosis of a commodity becomes too great, there is a possibility for a crisis.

Read page 128, 6th line from above.

How much money is needed?

Marx: "The quantity of money functioning as the circulation medium is equal to the sum of the prices of the commodities divided by the number of moves made by coins of the same denomination. This law holds generally." (p. 135)

If the money is only the reflex of circulation, then it will grow with the rapidity with which commodities exchange their forms.

The total quantity of money functioning during a given period as the circulation medium is determined, on the one hand, by the sum of the prices of the circulating commodities, and on the other hand, by the rapidity with which this process C-M-C goes on.

Coins and Symbols of Value

There are coins and bullions. The only difference between them is the shape. To make coins is the business of the state. The weight of the coins are fixed by laws.

Then in circulation the coins wear away. So the function of gold becomes completely independent of the metallic value of that gold. Therefore even things without value, like paper notes, can serve as coins. Only insofar as paper money represents gold it is a symbol of value, and a means of circulation.

Assignment: (1) The process of exchange, (2) The circulation of commodities. Read pp 163 to 196.
SESSION FIVE

The Transformation of Money into Capital

The circulation of commodities is the starting point of capital. Money is the first form in which capital appears. (The money of the merchants in the 16th century). The simplest form of circulation of commodities was:

\[ C \rightarrow M \rightarrow C \quad \text{or} \quad M \rightarrow C \rightarrow M \]

Selling in order to buy.

But along side with this form we find another:

Money - Commodity - Money

\[ M \rightarrow C \rightarrow M \]

or the transformation of money into commodities and the change of commodities back into money.

Buying in order to sell.

\[ M \rightarrow C \quad C \rightarrow M \]

The result is: \[ M \rightarrow M \] (Money for Money)

If we buy for $100 two thousand pounds of cotton and sell it for $110, then we have exchanged $100 for $110.

It would be stupid to exchange $100 with $100 in the process \[ M \rightarrow C \rightarrow M \].

\[ M \rightarrow C \rightarrow M \] must have as the result the exchange of less money for more money.

Simple circulation: \[ C \rightarrow M \rightarrow C \] started with a sale and ended with a purchase.

THE CIRCULATION OF MONEY AS CAPITAL BEGINS WITH A PURCHASE AND ENDS WITH A SALE.

In the first case the starting point and the goal are commodities. In the second, they are money.

In the first, the medium of exchange was money, in the second it is commodities. In the first case money is in the end converted into a commodity, it is spent once and for all.

In the form \[ M \rightarrow C \rightarrow M \] the buyer lays out money in order that as a seller he may recover money. He did not spend his money, he only advanced it.
The leading motive in this process is more exchange value.

The man who bought two thousand pounds of cotton for $100 and sold it for $110 reached this form of exchange: \( M \rightarrow C \rightarrow M' \)

\( M' \) equals \( M \) plus \( M \)

\[ \begin{align*} &M' = M + M \\ &110 = 100 + 10 \end{align*} \]

These additional 10 Marx calls \textit{Surplus Value} (S).

This movement converts money into capital.

Two thousand pounds of cotton are still two thousand pounds of cotton, nothing has changed. But the $100 are now $110, or:

\[ \begin{align*} &M \rightarrow M' \\ &100 \rightarrow 110 \end{align*} \]

In the course of this process the possessor of money becomes a capitalist.

The expansion of value \( M \rightarrow M' \) is the subjective aim of every capitalist.

\[ \begin{align*} &M \rightarrow C \rightarrow M' \end{align*} \]

is therefore in reality the general formula of capital as it appears in the sphere of circulation.

But previously we studied: the equivalent for all commodities is the labor time socially necessary for its production.

We did only recognize the exchange of equivalents. And where equality exists, there can be no gain.

If we exchange equivalents, then even if one commodity is exchanged above its value, another must be exchanged below its value, but the value as a whole would remain the same. There is no surplus value.

Circulation does not bring surplus value. You cannot produce capital in the sphere of circulation.

How then is it possible to buy commodities at their value and sell them at their value and still create a surplus?

This is the problem:

In order to gain surplus value the capitalist has to find a commodity that creates more value than it possesses.

This commodity is labor power which is for sale on the market.
Labor power is the commodity the worker brings to the market. To do so, his labor power must not have any use value to him but only exchange value.

This is why capitalism needs FREE LABORERS.

What does this mean, Free laborers?

Nature does not produce on the one side owners of commodities or money and on the other men that possess nothing but their labor power. This is the result of historical development.

The value of labor power is determined, as is the case of every other commodity, by the labor time necessary for its production and reproduction.

The value of labor power resolves itself into the value of a definite quantity of the means of subsistence. It therefore varies with the value of these means.

If six hours are necessary to produce the necessities for the production and reproduction of the worker, then six hours are daily necessary for the production of labor power.

If six hours social labor are incorporated in three dollars then three dollars express the value of one day of labor.

**MODIFICATION OF THE GENERAL LAW**

The consumption of labor power is at one and the same time the production of commodities and of surplus value.

**Speakers' Assignment:**

1) Transformation of Money into Capital.

2) Buying and Selling of Labor Power.

**Reading Assignment:**

pp. 197 to 255
The Production of Surplus Value.
QUESTIONS

1) From what two angles do we have to look at value? Use value and exchange value.

2) The twofold character of value is determined by quantity and quality.

3) What does quantity represent, and what does quality represent? Quantity equals exchange value, and quality equals use value.

4) Must every exchange value have use value? Yes.

5) Must every use value have exchange value? No.

6) What kind of value is represented by the bodily material form of a commodity? Use.


8) Capitalist production is production for exchange value.

9) What is the measurement of exchange value? Labor time.

10) What kind of labor do we deal with as the measurement? Simple, abstract.

11) What effect has the development of the productive power in relation to value? Increases use value and decreases exchange value.

12) The production of 5 tons of coal takes 5 hours of labor; the production of 10 yards of linen takes 1 hour of labor; then we exchange 5 tons of coal with? (50) yards of linen.

13) What is the value form of all commodities? The money form.

14) Is: 20 yards of linen = 20 yards of linen, a value expression? No.

15) Is: 20 yards of linen = 1 coat, a value expression? Yes.

16) In what position does linen stand here to coat? Relative value.

17) Is the coat the equivalent form? Yes.

18) How is the linen measured? By its relative value to the coat.

19) An equivalent for all commodities becomes the medium of exchange, and is then? Universal medium.
20) The universal equivalent is? Money.
21) Money is the? Universal equivalent.
22) When we speak of money we speak of? Gold.
23) Does a change in the value of gold affect its function as a standard of measurement? No.
25) If one quarter of wheat costs $1.5, then $1.5 is only the name for a certain ...... weight of gold.
26) If $1.5 expresses the value of one ounce of gold, then we exchange one quarter of wheat for ...... one ounce of gold.
27) Because: to produce one ounce of gold we needed the same amount of labor time as for the production of one quarter of wheat.
28) Simple circulation is expressed by the formula: C - M - C Selling in order to ...... buy.
29) Money is here the ...... medium of exchange, to make C-M-C possible.
30) Is hoarding of money necessary? Yes.
31) The capitalist form of circulation is: K - M - K Buying in order to sell. The result is k - C - K'.
32) In capitalist circulation the starting point and the goal are: Money. Money is here the ...... capital.
33) The circulation of money as capital has as a starting point and goal: ...... Money.
34) The money is here not spent, it is only advanced.
35) $100 buy 2000 lbs. of cotton, and this cotton is again sold for $110. K ---- C ---- K'. The ten dollars are then surplus value.
36) Can there be a surplus by the exchange of equivalents? No.
37) Can a surplus be gained in the sphere of circulation? No.
38) In order to obtain surplus value the capitalist has to find a commodity on the market that ...... gives more value than it receives.
39) This commodity is ...... labor.
40) The value of labor power is determined by the reproduction cost.
41) Does it differ here with any other commodity? No.
42) If 6 hours of social labor are incorporated in $3, and $3 are enough to produce and reproduce the labor power of a worker, then the value of one day is expressed by ...... $3.
SESSION SIX

The reading assignment for the last week covered 58 pages, from p. 197 to p. 255. We had two speakers assigned: they will deal with the subject discussed in the last session.

The first speaker will illustrate "The Transformation of Money into Capital." The second speaker will elaborate on "The Buying and Selling of Labor Power."

Make necessary corrections. Repeat the important points and then introduce the new chapter.

THE PRODUCTION OF SURPLUS VALUE

The capitalist buys labor power in order to use it, and labor power in use is labor itself.

What the capitalist makes the laborer produce is a particular use value, a specified article, a commodity for the market. Labor is, in the first place, a process in which both men and nature participate.

Man sets his body in action to appropriate from nature what he needs for his specific wants.

Human labor is different from labor of other species.

A spider makes a good net, and a bee a good cell, but what differentiates human labor from this is the fact that a human being creates his work in his imagination before he erects it in reality. Nature gives man only the raw material for his work. This raw material is at the same time the material for the tools man needs.

Franklin defines man as a tool making animal.

If we want to understand the past, we not only have to seek for the bones of the fossils, but the rest of society can best be understood by looking at the tools which were used.

It is not the articles made, it is how they are made, and by what instruments that enables us to distinguish different economic periods. They show us at the same time the social condition under which labor was carried on.

(Illustrate with the pyramids in Egypt, the cabins, the Empire State Building, etc.).
Products are not only results but also essential conditions of labor because one follows the other.

The means of production in the capitalist society are:
Raw materials, all the ways and means of transportation, machines and tools.

A machine as well as all other things which do not serve the purpose of labor are useless.
It will decay: iron rusts, wood rots away.

Labor has to give them life.

Let us follow a capitalist in his transactions.

He buys labor on the market. He also buys the means of production. Then he consumes the labor power.

The laborer works under the control of the capitalist; the capitalist takes care that the work is done properly so that the means of production are not spoiled or wasted.

The product belongs to the capitalist; not to the real producer, the worker.

The labor process is a process between things that the capitalist has purchased and things that have become his property.

The capitalist produces use values: shoes, hats, etc.

His aim, however, is to produce not only use values, but commodities; not only use value but value; not only value but surplus value. (Remember: $\pi \neg \neg 0 \pi n$)

Therefore, the process must be one of creating surplus value.

We know that the value of each commodity is determined by the quantity of labor expended on and materialized in it, by the working time necessary, under given social conditions, for its production. This rule holds good, too, under the capitalist mode of production for surplus value.

Let us say a capitalist has an end product of 10 lbs. of yarn. We have to find out what quantity of labor is realized in it.

Suppose we need 10 lbs. of cotton for spinning the yarn.

The capitalist has bought these 10 lbs. of cotton for, say, $\pi 10. (He bought the cotton for its value - the price of labor required for the production of his cotton is also already expressed.)

The wear and tear of his machines (spindle) will cost him for the production of 10 lbs. of yarn, say, $\pi 2.
Example: 10 lbs. of cotton .......... $10
use of machinery ........... $2 (2 days labor)

(If 24 hours of labor, or two working days, are required to produce the quantity of gold represented by twelve dollars, we have to begin here with two days labor that are already incorporated.)

If in one hour 1 2/3 lbs. of cotton can be spun into 1 2/3 lbs. of yarn, then 10 lbs. of yarn indicate the absorption of six hours of labor.

10 lbs. of cotton transformed into 10 lbs. of yarn in 6 hours.

Six hours of labor are also embodied in a piece of gold at the value of $3.

Thus, by the spinning process a value of $3 is added to the cotton.

<p>| 10 lbs. of cotton .......... $10. |
| use of machinery ........... $2. |</p>
<table>
<thead>
<tr>
<th>6 hours of spinning ........... $3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>10 lbs. of yarn .............. $16.</td>
</tr>
<tr>
<td>30 hours of labor, or 2 1/2 days.</td>
</tr>
</tbody>
</table>

No surplus value is created. No money is converted into capital.

The price on the market is $15, and $15 is what the capitalist has advanced.

(There is no surplus value created in circulation).

But let us see this process from a different angle.

We have said we assume the value of labor power is $3 because 1/2 day (6 hours) are embodied in that quantity of labor power.

Therefore, the value of labor power, and the value which that labor power creates in the labor process are two different things.

And this difference of the two values is what the capitalist had in view when he was purchasing the labor power.

The capitalist we deal with knows that he does not shut the factory after the production of 10 lbs. of yarn in 6 hours. He lets the work run for 12 hours.
That means he produces

20 lbs. of yarn and will sell these 20 lbs. for 30 dollars.

Now let us look at this process:

\[
\begin{array}{ll}
20 \text{ lbs. of cotton} & \ldots \$20 \\
\text{use of machinery} & \ldots \$ \ 4 \\
12 \text{ hours for spinning} & \ldots \$ \ 3 \\
\hline
\text{he sells it for} & \$30 \\
\text{Surplus} & \ldots \$ \ 3 \\
\end{array}
\]

He started out with $27, produced $30

\[ \underline{M} \quad \underline{C} \quad \underline{M}! \]

The value he has now is 1/9 larger than the advanced value.

Money has been converted into capital.

Equivalent has been exchanged for equivalent.

The capitalist paid for everything he bought the full value.

The process of creating surplus value is nothing else but the continuation of the production of value beyond a definite point.

6 hours no surplus, 12 hours $3 surplus.

Constant and variable capital (Chapter 8).

Surplus labor creates surplus value (6 hours more).

The values of the means of production used up in the process are preserved, and present themselves as a part of the newly created product.

In 20 yards of yarn are presented $4 of spent machinery (wear and tear).

The value of the means of production is transferred to the product.

This transfer is brought about by labor. But how?

By the very act of producing new values, he preserves their former value.

Each use value in the labor process disappears, only to reappear under a new form in a new use value. Cotton is gone, the spindle is gone, the work is gone, but yarn is there which has all these things incorporated in itself.

If we apply in this process the Development of the productivity of labor then we have this result:

-22-
The longer the time necessary to spin a given weight of cotton 
into yarn, the greater is the new value added to the material. 
The greater the weight of the cotton spun in a given time, the 
greater is the value preserved, by being transferred from it to 
the product.

If, due to some invention, we can spin in six hours the same 
amount of cotton we have spun before in 36 hours, then the pro-
duct of 6 hours labor has increased 6 times 6. But the value is 
now only 1/6 of its former value.

The product, however, that is preserved and transferred into the 
ew product is six times greater.

How is the value of machinery and raw material transferred to the 
new product?

Some raw material, coal, oil, etc. vanish as use values at once. 
Others (tools, machinery, etc.) only partly.

During the working time the machine's use-value vanishes and by 
this its exchange value is slowly but completely transferred to 
new products.

If a spinning machine lasts 10 years, its total value is grad-
ually transferred to the products during 10 years.

Means of production never transfer more value to the product 
than they themselves lose during the labor process by the de-
struction of their own use value.

A machine is worth $1000 and lasts 1000 days, then $1 a day will 
be transferred as value to the product.

The means of production can never add more value to the product 
than they themselves possess independent of the process in 
which they assist.

That part of capital, then, which is represented by the means of 
production undergoes no quantitative alteration of value.

That is why Marx called it the constant part of capital, or 
shortly the constant capital (c).

The other part of capital that is represented by labor power 
reproduces the equivalent of its own value and also a surplus 
value. This part makes capital bigger, enables the change from 
less to more.

That is why Marx called it the variable part of capital, or 
briefly, variable capital (v).
The Rate of Surplus Value. (Chapter 9)

Capital "C" is made up of two components, one, the sum of money laid out upon the means of production, and the other, the sum expanded upon labor power (wages) "V".

\[ C \quad \text{constant capital,} \quad V \quad \text{variable capital.} \]

We have first:

\[ \begin{align*} C &= \text{c} - \text{v} \\ 500 &= 410 - 90 \end{align*} \]

When the process of production is finished we have:

\[ \begin{align*} c &= 410 \\ v &= 90 \\ s &= 90 \\ C &= 590 \end{align*} \]

The original capital has now changed from:

\[ \begin{align*} C &= 500 \\ V &= 90 \end{align*} \]

The difference is \( s \) or surplus.

\[ \begin{align*} C &= c - v \\ \text{-----------} \\ C &= c - v - s \\ \text{----------------} \\ 500 &= 590 \end{align*} \]

\( s = 90 \) expresses the absolute quantity of surplus value produced.

The relative quantity produced, or the increase per cent of the variable capital, is determined by the ratio of the surplus value to the variable capital, or is expressed in the formula:

\[ \frac{s}{v} \]

In our example this ratio is \( \frac{90}{90} \)

which gives an increase of 100\%, or a rate of surplus of 100\%.

(Remember, the variable part alone creates surplus, so from here alone the rate of surplus value can be drawn.)

A worker gets for 6 hours \( \frac{3}{4} \) and creates his life necessities by that. The 6 hours were necessary to enable him to live. He would, even without working for a capitalist, be forced to work 6 hours in order to make his living. This time we will call necessary labor. In this relation he would be of no value for the capitalist. But during the other 6 hours in which he is giving surplus labor, he is creating surplus value. This is surplus labor time.

The essential difference between the various economic forms of society, for instance, between a society based on slave labor, and one based on wage labor, is that in each case it is extracted from the actual producer, the laborer, in a different form.
Thus the rate of surplus value is determined by the rate of surplus labor.

\[
\frac{s}{v} = \frac{\text{surplus labor}}{\text{necessary labor}} \quad \text{both express the same thing in different ways.}
\]

The rate of surplus value is therefore an exact expression for the degree of exploitation of labor power by capital, or of the worker by the capitalist.

\[
\frac{s}{v} : \frac{90}{90} = 100\% : \text{Surplus labor} : 6 \text{ hours} : \$3
\]

\[
\frac{v}{v} = \frac{\text{Necessary labor}}{6 \text{ hours} \times \$3}.
\]

The laborer here works half the day for the capitalist, the other half for himself.

**Example of production for profit:** (p. 243)

**Spinning mill**

10,000 spindles producing 10,000 lbs. of yarn weekly.

6% waste, consumption: 10,600 lbs. of cotton weekly.

10,000 spindles cost $10,000. They are good for ten years.

So they cost yearly $1,000, weekly ----- $20.

Use of machinery weekly .......................... $20

10,600 lbs. of cotton ............................... 342

Rent weekly ........................................... 6

Coal, gas, oil, etc., weekly ......................... 10

Constant capital weekly ............................ 378

Wages (variable capital, weekly) ................. 52

Cost of production ............................... $430

The price for yarn is: 10,000 lbs. ............ $510

Cost of production ............................... $430

Surplus value ................................. $80

Constant part of capital cannot create surplus value.

So we put

\[
\frac{c \cdot c}{v \cdot v} : \frac{60}{52} ^{\text{surplus}} \frac{132}{132} \text{weekly created value.}
\]

The rate of surplus value: \(\frac{60}{52}\)

In a working day of 10 hours the result is: (roughly)

necessary labor: 3 1/2 hours: surplus labor: 6 1/2 hours.

Since the production of surplus value is the chief aim of capitalist production, all wealth must be measured by the quantity of extracted surplus value.

**Speakers' assignment for section six:** 1) The production of surplus value, 2) Constant and variable capital, 3) The rate of surplus value. Reading assignment: pp. 255-341.

-25-
In our last session (pp.197-255) we dealt with the production of surplus value, constant and variable capital and the rate of surplus value.

Assignments were given to three speakers.

The first speaker will deal with the production of surplus value. Surplus value is nothing but surplus labor time. By working more than is necessary surplus labor and surplus value is created.

The second speaker will speak about constant and variable capital. Constant capital: means of production, raw material, tools, machinery. Variable capital: wages. Only variable capital can create surplus value. The value of the constant capital is transferred to the new product.

The last speaker will speak about the rate of surplus value. The rate of surplus value shows the rate of exploitation; necessary labor time and surplus labor time. Another expression for the same thing. $90:90 = 100% = 6$ hours; $6$ hours = $100%$.

$\frac{\text{Surplus labor time or surplus value}}{\text{Necessary labor or variable capital}}$.

The working day: p.255.

We started with the assumption that labor power is bought and sold at its --- ? --- Value.

6 hours necessary, 6 hours --- ? --- Surplus labor time.

Here a given quantity of time determines the rate of surplus value as well as the value of labor power.

BLACKBOARD: Let us take three different working days,

A -- 6 ____ B -- 9 ____ C --- 12

Rate of surplus value

$\frac{1}{12} 2/3$.

$50\% 100\%$

The rate of surplus value alone would not give us the length of the working day. If the rate was $100\%$, it still would not tell us whether the working day was 6, 12 or 16 hours.

The working day is a variable quantity, but it has its limits, absolute limits. A --- 23, then surplus labor is C. Without surplus value no capitalist production is possible. If all labor time is necessary, no profit is possible.

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The working day has a maximum limit, too. No man can work 24 hours at all times.

Difference of working days.
More time for recreation is required for better work, time to study, etc. That is the reason for shortening the working day, not only through the struggle.

The capitalist bought the laborer for the whole day at his value.

But what is a working day? It must be less than the natural day.

However, because profit is the only aim of capitalist production, the capitalist must by all means try to get as much surplus labor out of the worker as possible.

Marx: "Capital is dead labor, that vampire-like, lives only by sucking labor; the more it sucks the more it lives". p.257.

The capitalist does so by way of exchange of value with value. He pays with the value of a working day. But what is a working day?

Marx reconstructs a leaflet the workers used during a strike in England in 1860 which said that, if the worker lives 30 years, then the value of his labor power would be:

\[
\frac{1}{365/360} \quad \text{or} \quad \frac{1}{10950}
\]

of its total value.

But if the capitalist works his laborer to death then, in perhaps 10 years, it would not be: \( \frac{1}{10950} \) but \( \frac{1}{3650} \)

or only 1/3 of its daily value. 2/3 are robbed by the capitalist. Here the capitalist pays for one day and uses three.

Marx: "In the history of capitalist production the determination of what is a working day presents itself as the result of a struggle, as a struggle between collective capital and the working class." p.259.

Capital has not invented surplus labor.

Marx: "Wherever a part of society possesses the monopoly of the means of production, the laborer free or not free, must add to the working time necessary for his own maintenance an extra working time in order to produce the means of subsistence for the owners of the means of production." p.259
In the feudal system the serf worked 3 days on his own field and 3 days on the field of the feudal lord.

In capitalism this time is not so distinct anymore.

The worker does not work six hours every day for the capitalist, and six hours for himself, but the surplus labor and the necessary labor combine with each other.

We can express the surplus labor just as well by saying, he works 30 seconds for himself and 30 seconds for the capitalist.

Sternberg's theory is: "If there were less laborers, exploitation would not be possible. The capitalist would have to bid so high that no surplus could be derived." This theory is unsound.

Private property and private ownership of the means of production is "the thing that counts", which makes exploitation possible.

The working day and the crisis.

Marx: "Crisis during which production is interrupted and the factories work "SHORT TIME" for only a part of the week, naturally do not affect the tendency to extend the working day. The less business there is, the more profit has there been made on the business done. The less time spent in work, the more of that time has to be turned into surplus labor time."

Marx gives the history of the exploitation of men, women and children in English industry. See Engels "Situation of the laboring class in England."

Night work: Constant capital, the means of production, considered from the standpoint of production of surplus value, only exist to absorb labor. Every working hour brings profit. So the tendency of capital is to have workers at the machines all the time, 24 hours if possible.

The capitalist does not care for the life of the worker. And the slave holder did not care for the slave either, as soon as the slave was exploited for the market. Seven years of slave exploitation was more profitable to the slave owner than the lifetime work of the slave. The capitalist who worked the English bakers to death, always found other workers on the market from Poland or Germany. They were born faster than they died.

Capitalism has its own law of population.

Birth control. Bonus for the birth of the 8th child, etc. Killing of workers, stagnation of population through crisis, will be practiced as long as it is profitable.
The class struggle was a fight for the 16 hour day instead of the 16 hour, and for the 12 hour instead of 16 hour day. And when the workers had the 12 hour day the capitalist said that it would be impossible to make a profit that way. They fought in the interest of the human race and in the name of good doing against the shortening of the working day.

The 8 hour struggle in the U.S.A., Haymarket Affair.

Marx gives us the history of the struggle for the shortening of the working day. The French February Revolution was necessary to bring about the 12 hour day in France.

Marx: "In the United States every independent movement of the workers was paralyzed so long as slavery disfigured a part of the Republic. Labor cannot emancipate itself in the white skin where in the black it is branded."

Chapter 11

Rate and Mass of Surplus Value.

We now know that the working day determines the rate of surplus value. "We said a worker has to work (as in our example) 6 hours for himself and six for the capitalist. The rate of surplus value would be 100%: six hours necessary labor plus six hours surplus labor for the capitalist.

If the six hours necessary labor were expressed in a quantum of gold, six = $3, then $3 is the value of the daily labor power of one worker. By hundred workers it would be $300. A factory with 100 workers would daily need $300 variable capital.

The mass of surplus value, too, would then be $300, if we express it in gold.

Marx: "The mass of surplus value produced is therefore equal to the surplus value which the working day of one laborer supplies, multiplied by the number of laborers employed". p.331.

In our example the rate and the mass of surplus value is the same. The mass is $300, the rate 100%.

If the rate of surplus value would amount to 50% only, then the mass of surplus value, with the same amount of laborers, would be $150 or 100 laborers producing instead of six hours only three hours surplus value. If the rate of surplus value is 200%, the mass would be $600, or the 100 workers would have to work 12 hours surplus labor.
If the capitalist would get rid of 50 workers, he would start out with $150 variable capital. He could get the same amount of surplus by lengthening the working day.

300 variable capital : 100 workers
50% surplus rate:$150
150 variable capital : 50 workers
100% surplus rate:$150

Intensification of work due to the development of machinery. We will deal with the problem of all these variations when we take up relative surplus value.

At present we must take notice of this tendency:

The rate of surplus value has its limits, as well as the mass of surplus value.

In the chapter on accumulation of capital --which is most important-- we will deal with this difference between the rate and the mass of profit thoroughly. Today we will deal with it only briefly.

300 variable capital - 100 workers - 16 hour working day - rate of surplus value 200%

This produces a mass of surplus value of $600 or 12 x 100 working hours.

It can never reach $1200 or 24 x 100 working hours.

The absolute limit of the average working day is by nature always less than 24 hours. This sets an absolute limit to the compensation or the reduction of variable capital by a higher rate of surplus value.

It is one of the main contradictions of capital to reduce as much as possible the number of laborers employed by it, or its variable part, and the tendency to produce as much as possible surplus value.

The greater the variable capital, the greater would be the mass of value and surplus value. If the limit of the working day is given, the mass of value and surplus value is only dependent upon the mass of labor that is in motion.

With a given rate of surplus value and a given value of labor power the mass of surplus value produced therefore varies directly in accordance with the amount of the advance variable capital.

We know that the constant part does not create value but only transfers its value to the new product.
So there stands as a law:

That the mass of value and the surplus value produced by different capitalists, the value of labor power being given and its degree of exploitation being equal, vary directly as the amounts of the variable constitute parts of these capitals.

The labor which is set in motion by the total capital of a society may be regarded as a single collective working day. The number of workers as a million and the working day (average) of a laborer 10 hours, then the social working day would consist of 10 million hours.

Here the mass of surplus value can only be increased by increasing the number of laborers. The growth of the population is here the limit to the production of surplus value by the social capital.

By this it follows that not every sum of money can be transformed into capital. There is a minimum, a certain limit a man must possess, before he can start production for profit.

The minimum of variable capital is the cost price of a single laborer, employed for the production of surplus value. To make a living, the capitalist would have to exploit this laborer 100%, and then he could only live like the laborer. If he would like to live twice as good as the laborer, he must advance twice as much capital.

In order to prevent the guild masters in the middle ages from becoming capitalists, they were forbidden to hire more laborers which would have brought them more surplus value.

So the possessor of money or commodities actually became a capitalist in such cases only where the minimum sum advanced for the production greatly extended the maximum of the middle ages.

Here the Hegelian Dialectics show again that "Quantitative differences beyond a certain point pass into qualitative changes".

The minimum of capital to start with changes with different stages of development. Some spheres of production need so much money for the start that no individual has enough to tackle his alone. This explains the state subsidies and the joint stock companies.

Reading assignment: op. 342-404.
Speakers' assignment: 1) The working day, 2) 'Struggles for the shortening of the working day, 3) Rate and mass of surplus value.
SESSION EIGHT

The reading assignment for the last week covered 62 pages (342-404).

We dealt with the working day, struggles for the shortening of the working day, and we took up the question of the rate and mass of surplus value.

Assignments were given to three speakers. The first speaker will deal with the working day; the second will tell us something about the struggle for the shorter working day, and the third will deal with the rate and mass of surplus value.

The working day is a variable quantity but it has its absolute limits.

**Question:** What are these limits?

**Maximum limit:** The working day cannot be more than 24 hours.

**Minimum limit:** The necessary labor time.

Surplus value is nothing but surplus labor time.

**Question:** Suppose, the necessary labor time remains constant, what has the capitalist to do to raise his profit?

**Question:** What could he do during a crisis in relation to the working day?

**Question:** Why was the class struggle in the upward swing of capitalism a fight for the shortening of the surplus labor time? What was the result of this struggle?

**Second speaker:** The fight for the 12 and 8 hour day.

**Question:** Can the class struggle still center around the issue of shorter hours?

**Third speaker:** Rate and mass of surplus value.

The working day determines the rate of surplus value:

\[
\begin{array}{ccc}
A & B & C \\
16 & 2/3\% & \\
& 50\% & \\
& 100\% & \\
\end{array}
\]

**Example:**

\[
\begin{array}{ccc}
A & B & C \\
6 & 6 & \\
$300 \text{ variable capital} & $300 \text{ Surplus value} & = 100\% \\
$300 \text{ variable capital} & $150 \text{ surplus value} & = 50\% \\
$300 \text{ variable capital} & $600 \text{ surplus value} & = 200\% \\
\end{array}
\]
Example: 300 v - 100 workers - rate of surplus 50% = $150
150 v - 50 workers - rate of surplus 100% = $150 surplus value

Limits:

300 v - 100 workers - rate of surplus 0% = $00 s v
300 v - 100 " 200% = $600 s v
300 v - 100 " 300% = $900 s v
300 v - 100 " 400% = $?

For 400% there would be necessary a day of 30 hours which is impossible.

If the worker would work 30 hours then he would have created $1800.

What has to be done to get this amount of money?

600 v - 200 workers - rate of surplus 200% = $1200 s v
1200 v - 400 " 100% = $1200 s v
2400 v - 800 " 50% = $1200 s v
4800 v - 1600 " 25% = $1200 s v
9600 v - 3200 " 12 1/2% = $1200 s v

Give hourly proportion between necessary labor and surplus labor.

With a given rate of surplus value and a given value of labor power, the mass of surplus value produced therefore varies directly as the amounts of the advanced variable capital vary.

9600 v - 3200 workers - rate of surplus 200% = $19200 s v
4800 v - 1600 " 100% = $4800 s v
2400 v - 800 " 50% = $1200 s v
1200 v - 400 " 25% = $300 s v
600 v - 200 " 12 1/2% = $75 s v

The mass of value and surplus value produced by different capitals—the value of labor power being given and its degree of exploitation being equal—varies directly as the amounts of the variable parts of these capitals.

Not every sum can be transformed into capital.

The Minimum: The cost price of a single laborer. To live twice as good as the laborer, employing two laborers is necessary.

Explain why the guild master in the Middle Ages could not become a capitalist?

The possessor of money or commodities actually turns into a capitalist in such cases only where the minimum sum advanced for the production exceeds the maximum of the Middle Ages.
Hegelian Dialectics: Change from quantity to quality.

Question: Explain joint stock companies, State railroads, etc.

Part IV, Chapter XII.

Until now we have dealt with absolute surplus value - which means that surplus value is determined by surplus labor only.

That portion of the working day which merely produces an equivalent, and not the value paid by the capitalist for the labor power, is always looked at as the constant part of capital.

A ---- B - C    A ---- B -- C    A ---- B ---- C

What varies here is the surplus labor time: B ---- C.

Now let us assume that we have a given working day of 12 hours.

\[
\begin{align*}
A & \quad 10 \quad \text{n.1.} \\
B & \quad 2 \quad \text{s.1.} \\
C & \\
\end{align*}
\]

The length of A ----------- C may be given. We assume that we cannot change anything. The only possibility to lengthen here or increase the surplus, would be to move B towards A.

A ----------- B ----- B ------- C

The extension of the surplus labor time forced us to take some time away from the necessary labor time.

We, then, have an alteration, not in the length of the working day, but in its division into necessary and surplus labor time.

But we claimed at first that the workers are paid for their value and so there must be a drop in the value of labor power to make this possible.

We will hold to the proposition that all commodities, including labor power, are bought and sold for their value.

The fall in the value of labor power is only possible when the same necessities of life which were formerly produced in 10 hours could now be produced in 9 hours. This is only possible with an increase in the productivity of labor. But we have learned already that the productivity of labor power increases use values and decreases values.

The increase in the productivity of labor is an alteration in the labor process that shortens the time socially necessary for the production of commodities. A given quantity of labor must produce a greater quantity of use values. With that the value drops.

-34-
The technical and social conditions, the mode of production, must be revolutionized before the productivity of labor can increase.

Marx called the surplus value produced by prolongation of the working day: **absolute surplus value.**

The surplus value produced by shortening the necessary labor through the development of the productivity Marx called: **relative surplus value.**

An increase in the productivity of labor in those branches of industry which supply neither the necessaries of life nor the means of production required for the production of the necessaries of life leaves the value of labor power undisturbed, such as diamonds, wax flowers, playing cards, etc.

The capitalists do not cheapen the commodities consciously by increasing the productivity of labor.

Marx: (p.347) "It is not our intention to consider here the way in which the laws, eminent in capitalist production, manifest themselves in the movements of the individual masses of capital where they assert themselves as coercive laws of competition, as they appear in the mind of the capitalist. You could not understand competition before having a conception of the inner nature of capitalism. And this inner law is to be found without taking competition into consideration. They are already based on the theory of value."

But let us take a look at competition and find out what the creation of relative surplus value means in relation to competition.

**Example:**

1 hour of labor = $1
1 day of 12 hours = $12
12 hours of labor can produce 12 shirts.
The price of one shirt is $2, 12 shirts = $24
$6 are formed into shirts from the constant part of capital (material, etc.)

The rate of exploitation is 50%.
By selling 12 shirts the capitalist makes a surplus of $6.

Through a new invention he raises the productivity of labor 100%.
1 hour of labor is still $1, 12 hours = $12.
But now 24 shirts are produced instead of 12.
The price of the shirt is still $2.
$12 are now transferred into the shirts from the constant part of capital.

If he sells all 24 shirts he has a surplus of $24.

At first it took this capitalist 1 hour to produce one shirt.
Now it only takes him 1/3 hour. If he is able to sell all shirts, he makes $24 instead of $6, during one day.

-35-
But now he has to find a market for 24 shirts instead of for 12. His wish does not make the market larger to absorb his 24 shirts. All the other producers of shirts who have not applied the new invention still produce only 12 shirts during the day.

We learned already that the real value of a commodity is not its individual value but its social value. The real value is not measured by the labor time that the article in each case costs the individual producer, but the labor time socially required for its production.

Questions

If this capitalist could get rid of his 24 shirts at the "social price" of $2 each, he would sell his shirts over their value, over their production price. In this case, $3/4 over their value.

However, in order to get rid of his shirts he has to take the market away from others. But if the possibilities of the market are the same, then in order to get rid of 24 shirts, he must sell cheaper than the others. He has to sell the shirts, even if he sells them over their individual value, under the social value. He will sell the shirts for $1 1/2 each. Then he will get only $36 for his 24 shirts. He still has twice as much surplus as before ($6), but at the same time he sells the shirts below their value (social value).

Now, the other capitalists will be forced to apply the same method and in the long run the shirts will again be sold at their social value. There is an individual motive in every capitalist to cheapen his commodities by increasing the productivity of labor. And in this process which is applied to every commodity, the value of labor power is decreasing with the increase in use values.

This increased production of surplus value arises from the curtailment of the necessary labor time and from the corresponding prolongation of surplus labor.

A -- -- -- -- -- B -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- C

Relative surplus value rises and drops with the productivity of labor.

Marx: "The object of all development of productivity of labor, within the limits of capitalist production, is to shorten that part of the working day during which the workman must labor for his own benefit, and by that very shortening to lengthen the other part of the day during which he is at liberty to work gratis for the capitalist." p.352.

We have already seen that capitalist production can really begin only when there is a possibility to exploit many laborers, and when there is enough capital on hand to do so.
a greater number of workers working together in one place, in order to produce the same sort of a commodity under the master-ship of the capitalist, constitutes, historically and logically, the starting point of capitalist production.

The development of production from the middle ages to capitalism was at first only a change in quantity: more money was necessary to hire more laborers and the enlarging of the workshop of the master craftsman.

The number of workers did not, as we have seen, affect the rate of surplus value but the mass. But the mass of surplus value varies with the number of workers employed. If a capitalist employs one laborer who may be an efficient worker, the capitalist makes a good profit. Another worker may not be as good and therefore the capitalist would make less profit on him. But if many workers are employed, the question is no longer that of good or bad workers, but their labor is figured on the average. If one worker is more efficient than another, then the average amount of work they perform is neither good nor bad. If one worker puts out four shirts during the day and the other worker produces six, they both produce 10, or an average of 5 shirts each.

Cooperation of labor is necessary in capitalist production.

Example: also give illustration.

A bigger capitalist can produce more economically and cheaper. Not only a minimum for variable, but also a certain minimum for constant capital is necessary to produce successfully in a capitalistic way. This is why the big capitalist can eliminate his smaller competitor. Later on we will see that even in competition there are fundamental contradictions.

Cooperation is combined with division of labor.

In Chapter XIV, Marx gives a good illustration of the development and consequent results of the division of labor and manufacture. (Use the stockyards and the Ford Motor Plant as examples in illustrating the latest results in the division of labor. In the beginning one worker produced the complete product. The modern worker, on the other hand, performs only one operation in the large factories where mass production is carried on).

The result of the labor of the one worker in a large factory is the starting point of the labor of another. Since the Collective laborer has functions both simple and complex, the individual laborer requires different education and must therefore have different values, or higher and lower wages.

Division of labor in society.
It develops in a factory in the same way as it develops in society as a whole, but here it finds its limits in the private property relations and can only be freed in a communist society. The anarchy is slowly vanishing, but cannot be done away with completely in capitalist society. (A capitalist planned economy is not possible).

Reading assignment: Pages 405-556.

First speaker: Relative surplus value.
Second " Cooperation and division of labor.
Third " Division of labor in manufacture and in society.
SESSION NINE

Session Eight, pages 342 to 404 dealt with Relative Surplus Value, Cooperation and Division of Labor, Division in Manufacture and in Society.

Three speakers were assigned. The first will speak on the conception of relative surplus value. The second on the cooperation in capitalist production. The third speaker will tell us something about the division of labor in manufacture and in society.

The machine is a means for producing surplus value.

In the beginning of capitalism, in manufacture, the revolution in the mode of production began with labor-power. Cooperation and division of labor is only a process of arrangement of work and workers.

The revolution in the mode of production in modern industries has its beginning in the development of the instruments of labor.

The machine is a mechanism, performing the same operation that was formerly done by workmen.

Marx describes the development of the machine. It has grown out of the old tools. A pump was still a pump, but driven by an engine instead of by arm-power.

The machine develops the machine. So came the production of machines by machines. (World market, mass production, from one process to another).

The productive forces resulting from cooperation and division of labor costs capital nothing. (Question). They are the natural forces of social labor. The arrangement of production is an example.

Machinery, as all the other parts of constant capital, neither creates nor adds value to the new product.

So instead of becoming cheaper, the products of the machine should be dearer, as these contain part of the value of the machine.

The machine, though always entering as a whole in the laboring process, enters in the value begetting process only partially. On an average, by wear and tear, it never adds more value than it loses.
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The machine, though always entering as a whole in the laboring process, enters in the value begetting process only partially. On an average, by wear and tear, it never adds more value than it loses.
There is a great difference between the value of the machine and the value transferred to the new product. The longer the life of the machine the greater is the difference.

Given the difference between the value of the machinery and the value transferred to the new product, the extent to which this latter value makes the product dearer depends on the mass of the product made by the machine.

The productivity of a machine can only be measured by the human labor-power it replaces.

If it costs as much labor to produce a machine as is saved by the employment of the machine, employment of the machine would be senseless. Therefore, no increase in the productivity of labor.

Machine Production in capitalism, therefore, has its absolute limits. Capitalism uses or develops the machine only so long as it reduces the cost of production and increases profits.

If a machine would save labor but its application would cost more than the available labor-power, the machine would not be introduced.

The use of machinery for the exclusive purpose of cheapening the products is limited insofar as less labor must be expended in producing the machinery than is displaced by the employment of the machinery.

**Absolute Limit:**

Invention of a machine that enables us to cut down transportation of 100,000 tons of goods between Chicago and New York to 2 hours. Without the new railroad to transport 100,000 tons we had to put in 200 working hours or 2000 working hours for a million tons. But this new rocket railroad lasts only 10 trips on account of the speed and the special building.

We would have this result:

- Old railroad 1,000,000 --- 2000 working hours
- New railroad 1,000,000 --- 2000 working hours

The machine may be a very smart invention but it could not be used for it would not have increased the productivity.

What does the development of the machine mean to the worker?

The machine, by replacing direct muscular power, made the exploitation of women and children possible. By this, the value of the labor-power was not, as before, determined by the necessities to maintain the adult laborer with his family, but
by throwing every member of his family on the labor market, spread the value of the labor-power of this man over his whole family.

At first, the income of one could feed four persons. Now with four persons working, the income of four could only feed four. The capitalist could pay the worker less. The value of labor-power decreased on this account.

Marx gives some good illustrations to what extent children and women were exploited. In the United States in 1936 there was still one-half million children working in the industries.

We said, the longer the life of a machine the greater is the mass of products but the smaller is the value transferred to each single commodity.

The active lifetime of a machine again is based on the length of the working day.

The wear and tear of a machine is not exactly proportional to its working time.

A machine working daily 10 hours during 7 1/2 years and a machine working daily 8 hours during 15 years transfers to the total product the same value, but the transfer took in the first instance only 7 1/2 years.

The capitalist gets his surplus labor in a shorter time and thereby also his advanced capital.

The wear and tear of the machine has to be considered from two angles.... Use and Non-use.

Look at a nickel that is long in circulation and compare the book that has never been used. The elements of decay diminish the value.

The machine undergoes a moral depreciation. It loses exchange value, because machines of the same kind are produced cheaper, and better machines enter the competition process.

In both cases, the value of the machine is not any more determined by its actual production cost, but by the production cost of the new and better machine. Because only socially necessary labor in the average is the measurement of value. (Question).

In this case the machine has lost value. The less time the machine takes to reproduce its total value the less is the danger of moral depreciation; the longer the working day, the shorter is this period.

When machinery was first introduced, new methods of reproducing it more cheaply followed one after another.

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In the early days of capitalism, therefore, the prolongation of the working day was mostly tried. On a higher developed stage, due to the over-accumulation of capital and due to the limits of capitalist technique, and also to the limits of technique as such, the value of the machine is more static.

Given the length of the working day, all other circumstances remaining the same, the exploitation of double the number of working men demands, not only double a part of constant capital invested in machinery and buildings, but also of that part which is advanced in raw material. The lengthening of the working day, on the other hand, allows a production on an extended scale without any alteration in the amount of capital advanced in machinery and buildings.

Machinery produces relative surplus value, not only by directly deprecating the value of labor power and by indirectly cheapening the same through cheapening the commodities, but also when it is first introduced in the production process.

During this transition period, when the use of the machinery is a sort of monopoly, the profits are exceptional and the capitalist tries to hold on to this situation as long as possible by lengthening the working day.

Profits whets his appetite for more profit.

As the use of machinery becomes more general in a particular industry, the social value of the product sinks to its individual value.

Surplus value arises from the variable capital alone. (Question).

The amount of surplus value depends on two factors: (Question) The rate of surplus value and the number of workers employed.

Given the length of the working day, the rate of surplus value is determined by the relative duration of the necessary labor and of the surplus labor during a day.

The number of laborers employed depends upon the ratio of the variable to the constant capital.

With the development of machinery, the number of working men employed by a given capital decreased. What was formerly variable capital invested in laborpower is now invested in machinery and becomes constant capital, which does not create surplus value but only transfers its value to the new product.

Two men do not bring as much surplus value as 24 men.

The application of machinery brings with it a contradiction.
With a given amount of capital the rate of surplus value can not be increased without decreasing the number of working men.

If a man has $500, and he employs 50 laborers at $5, then he invested $250 variable capital and $250 constant capital. If he uses a new machine for which he invested 400 constant capital then he can only employ 20 laborers instead of 50, or a variable of $100.

But the mass of surplus value was, as we saw first, dependent on the amount of laborers. So it should decrease, but it does not because the machine makes more products and by that lowers the necessary labor-time and, at the same time, increases the rate of surplus value, or the lengthening of the working day; that is, social working day.

This contradiction forces the capitalist to lengthen the working day absolute or relative—in order that he may compensate the decrease in the relative number of laborers exploited—by an increase not only of the relative but also of the absolute surplus labor.

By this same process the surplus population develops which has to submit to the dictates of capital.

In machine production the capitalist also intensifies labor. As soon as the lengthening of the working day (absolute) was stopped by laws the capitalist threw himself into the production of relative surplus value, by hastening the further improvement of machinery, from speed-up by force, to the Taylor System.

The replacement of human labor-power by machinery drove the workers in the early period of capitalism to fight the machine.

Inventors were killed in order to kill the application of their invention.

The Luddite movement in the 19th Century destroyed the machine as the menacing monster. The German weavers did likewise.

The instruments of labor, in the form of a machine, become competitors to the worker himself.

The self-expansion of capital by means of machinery is directly proportional to the number of the working people, their existence is being destroyed by this process.

The whole system of capitalist production is based on the fact that the working man sells their labor-power as a commodity.

Division of labor specializes this labor-power, by reducing its skill in handling a particular tool. As soon as the handling of this tool becomes the work of the machine, then with the use value, the exchange value of the worker vanishes.
These workers swamp the labor market and bring down the price of labor-power.

The capitalists say this is not true. And the theory of compensation comes into being.

Let us examine this theory. Capitalist ideas and theories agree that machinery displaces workers but at the same time sets free an amount of capital to employ an equal number of workers.

Suppose a capitalist employs 100 workers at $300 a year.

He has a variable capital for the year of 100 X 300 = $30,000 (Rate of S. 100%).

Now he buys new machinery that costs him $15,000.

He only employs 50 workers now or $15,000 variable capital per year. The raw material, etc. before and after: $30,000 remain the same. Is there capital set free? No.

There was $50,000 capital, $30,000 constant plus $30,000 variable. It has now changed to $45,000 constant and $15,000 variable. Yet it still is only $60,000 together. With each improvement in the machine fewer workers will be employed, if other circumstances remain the same.

But the capitalists have to employ more machinists in order to make the machines. If the machine is manufactured, it lasts some time, so in order to employ the machinists all factories have to introduce the machine. (The capitalists argue this).

But what the capitalists mean by "Compensation" is something else. They have in mind the means of subsistence of those workers displaced by machinery.

As a matter of fact, when the capitalist gets rid of 50 workers, as in our example, those workers do not consume any more to the value of $15,000. That means, a change takes place with the $15,000. It is not any more consumed by the workers but becomes capital for the employment of workers. (Fixed capital).

This theory says that the $15,000 were capital. It now fell out of production but it will look for new application in order to bring profit. But for the workers this $15,000 never was capital, but the means of subsistence.

What confronts them as capital is $15,000 afterwards laid out in machinery.

In regard to the $15,000 of which formerly the workers were buyers of commodities, they are not buyers any more; the price of the commodity will drop and more workers will be discharged.
The setting free of workers in one branch of industry does not compensate in the employment of other branches, but sets workers in other branches free too.

The laborers who are thrown out of work in any branch of industry cannot seek employment in some other industry. They find it only when a new capitalist is out for new investments.

As soon as machinery sets free a part of the workingmen employed in a given branch of industry, the reserve men are also diverted into new channels of employment and become absorbed in other branches; meanwhile the original victims during the period of transition are left to charity and semi-starvation.

Machinery as such is not responsible for disconnecting the workers from the means of subsistence.

Machinery as such considered alone, shortens the hours of labor, but in the use of the capitalist machinery lengthens the hours of labor.

In itself it makes the work easier, in capitalism it makes the work more intensive. Machinery of itself is a victory of man over nature but in the hands of the capitalist it makes man its slave.

In itself machinery increases wealth, in capitalism it makes paupers.

Although machinery necessarily throws men and women out of work in those industries into which it is introduced, yet it may despite this, bring about an increase of employment in other industries.

This effect however, has nothing in common with the so-called theory of compensation. We will see later how this works.

So far, we can say:

The new labor spent on the instruments of labor, on the machinery, must be less than the labor-power displaced by the use of the machinery, otherwise the product of the machine would be dearer than the product of manual labor. And the cheapening of the commodities was the reason for the employment of the machine.

In proportion as machinery increases so does the mass of raw material. The instruments of labor split into numberless branches. Social production increases in diversity.

The increase of the means of production and the subsistence (by the growing luxuries of the ever richer capitalists) accompanied by a relative diminution in the number of workers.
causes an increased demand for laborers in making canals, bridges, etc., work that can only bear fruit in the future. Entirely new branches of production, creating new fields of labor, are also formed as the direct result of either machinery or the general industrial changes brought about.

The portion of producing workers becomes smaller and smaller, while the parasites are absolutely increasing.

The cheapening of the articles produced and the improved means of transportation furnish the weapon for conquering new markets.

At the same time the enormous power inherent in the factory system, which expands by leaps and bounds, as well as the dependence of that system on the markets of the world, necessarily beget feverish production, over-filling of the markets, contradictions on the market, crippling of production, crises.

Except in the period of prosperity there rages between the capitalists the most furious combat for their share in the market. This share is directly proportional to the cheapness of the product.

In the sphere of agriculture, modern industry has a more revolutionary effect, because it does away with the bulwark of the old society, the farmer; the peasant replaces him as a wage laborer.

But all progress in capitalist agriculture is a twofold progress. The robbing of the laborer, that is exploitation, and the robbing of the soil at the same time.

Reading assignment: pages 557-617.
Speakers' "

1) The development of machinery.
2) The effect of the machine on workers.
3) The theory of compensation.
The Production of Absolute and of Relative Surplus Value.

Capitalist production is not merely the production of commodities, it is essentially the production of surplus value. The laborer does not produce for himself, but for the capitalist.

The production of absolute surplus value is the principal aim of the capitalist system. It is the starting point for the production of relative surplus value. The former must be there in order to make the latter possible.

In order to prolong the surplus labor, the necessary labor is shortened by methods whereby the equivalent for the wages is produced in less time.

The production of absolute surplus value depends exclusively upon the length of the working day. The production of relative surplus value revolutionizes the technical processes of labor and the composition of society.

A distinction between relative and absolute surplus value appears illusory, one depending practically on the other and yet the difference between absolute and relative surplus value makes itself felt whenever there is a question of raising the rate of surplus value.

In order to raise the rate of surplus value, only one out of two ways is possible.

First: when labor is paid at its value; that is, labor-power, and assuming a given productivity of labor and its normal intensity, the rate of surplus value can only be raised by the actual prolongation of the working day.

Second: Given the length of the working day, necessary and surplus labor-time, a change in the rate of surplus value is possibly only by the productivity or intensity of labor.

Capitalist production once assumed, all other circumstances
remaining the same, and given the length of the working day, the quantity of surplus labor will vary with the physical condition of the laborer, with the fertility of the soil, etc.

But this does not mean that the most fruitful soil is the most fitted for the development of capitalist production.

Where nature spreads its fruit too freely, there is no necessity for development.

It is not the mere fertility of the soil, but the differentiation of the soil, the variety of its natural process, the changes of the seasons, which form the physical basis for the social division of labor and by that led to capitalist production.

Favorable natural conditions alone give us only the possibility, never the reality, of surplus labor and of profit.

The necessary labor-time is different under different circumstances.

But let us see in which direction the price of labor-power and surplus value could vary. Changes are possible in relation to the absolute and relative surplus value.

The value of labor-power is determined by (Question) the value of the necessities of life habitually required by the average worker.

The quantity of these necessities is known at any given epoch of a given society.

That is why we can take it as a constant magnitude; what changes is the value of this quantity.

Until now we always assumed that every commodity is sold at its value. Under such conditions the relative magnitude of surplus value and the price of labor-power are determined by three circumstances:

1) The length of the working day
2) The intensity of labor
3) The productivity of labor

Let us look at different effects of a change in the magnitudes:

Assume that the length of the working day and the intensity of labor is constant, while the productivity of labor varies. What will happen? (1 and 2 constant, 3 variable).

A working day of a given length always creates the same amount of value, no matter how the productivity of labor, the mass of the product and the price of each single commodity
produced may vary.

If the value created by a working day of 12 hours would be $6 then, although the mass of the articles produced vary with the productivity of labor, the only result would be (Question) that the value represented by $6 is spread over a greater number of articles.

Surplus value and the value of labor-power vary in opposite directions:

If the value created by a working day of 12 hours is constant, then the one part of the value (surplus value) can only decrease if the other (labor-power) increases, or the opposite.

$3 surplus value plus $3 labor-power, then the value of labor-power cannot rise from $3 to $4, without the surplus value falling from $3 to $2.

The value of labor-power cannot fall, and consequently surplus value cannot rise, without a rise in the productivity of labor.

An increase in the productivity of labor causes a fall in the value of labor-power and consequently causes a rise in the surplus value; while on the other hand, a decrease in such productivity causes a rise in the value of labor-power and a fall in surplus value.

But the proportional increase or diminution in surplus value, on a given change in the productivity of labor, consequently depends on the original magnitude of that portion of the working day which embodies itself in surplus value; the smaller that portion, the greater is the proportional change; the greater that portion, the less is the proportional change.

While in our case, the value of labor-power falls from $4 to $3, by 1/4 or 25%, the surplus value rises from $2 to $3 or 1/2 or 50%. (Necessary labor-time $4; surplus labor-time $2).

The value of labor-power is determined by the value of a given quantity of necessaries of life.

It is the value and not the mass of these necessaries that varies with the productivity of labor.

Ricardo was the first who formulated these laws, but he had not investigated surplus value as such; that is, independently of its particular form, as profit, rent, etc.

For him the rate of profit and the rate of surplus value were the same.

The rate of profit is the ratio of the surplus value to the total capital advanced; the rate of surplus value is the
ratio of the surplus value to the variable capital.

A capital \( C \) of $500
The constant part $400, the variable part $100
the surplus value $100.

Then the rate of surplus value is \( s: \frac{100}{100} = 100\% \)
\( v: \frac{100}{500} = 20\% \)

But the rate of profit is \( s: \frac{100}{500} = 20\% \)
\( c: \frac{500}{500} = 100\% \)

With a given rate of surplus value, we can have different rates of profit.

Ricardo mixed up the profit with the surplus value. He was only interested to find the magnitude of profit to the productivity of labor, but then he never analyzed surplus value as such.

We can consider this subject from another angle. Assume that the working day is constant and the productivity of labor is constant. In this case it is the intensity of labor which varies.

What do we see now?

Increased productivity of labor will also supply more products. But in this case the value of each single product falls; it costs less labor than before.

By merely intensifying the production, the value remains unchanged, for each article costs the same labor as before.

We have only an increase in the number of products, and as their number increases so does the sum of their prices.

But by increased productivity a given value is spread over a greater mass of products.

If the intensity of labor would increase equally in every branch of industry, the new and higher degree would become the normal degree for society and would therefore cease to be taken into account.

But it would still make a difference in relation to other countries.

More money would be made, because the intensity brings more wealth to the capitalist, without changing the value of the commodities.

The more intense working day of one nation would be represented by a greater sum of money than would be the less
intense of another nation.

Let us investigate what would take place if the productivity and the intensity of labor would be constant but the length of the working day would vary.

A shortening of the working day leaves the value of labor-power, the necessary labor-time, unaltered.

It reduces the surplus labor and surplus value.

Only by lowering the price of labor below its value could the capitalist save his surplus value.

By lengthening the working day, the price of labor-power may remain the same, yet it would have dropped relatively.

WAGES

On the surface of bourgeois society the wages of the workers appear as the price of labor. A certain quantity of money is paid for a certain quantity of labor.

The worker sells his labor-power as a commodity on the market.

By what is the price of labor-power determined? (The bourgeois has one answer—by supply and demand).

But the price of labor-power, at the moment when demand and supply are in equilibrium, is its natural price, determined independently of the relation of supply and demand.

Supply and demand explains the price on the market above or below its real cost.

As soon as supply and demand balance, this ceases to explain the price.

We know what determines the value and also the price of labor-power.

If a man earns $3 a day he may have created a value of $6, but the $3 appear to him as his wages for the day.

The wage form does away with the division of the working day in necessary and surplus labor-time.

The capitalist pays him $3 for twelve hours, or 25¢ an hour. But in reality he pays him only for 8 hours because the worker created a value of $6 or 50¢ an hour.
In slave labor, all labor, even that part of the working day in which the slave is only replacing the value of its own means of existence, appears to him as labor for his master.

In the wage system, even unpaid labor, appears as paid.

There are many forms of wages, but two are fundamental: time and piece wages.

The unit measure for time wages, the price of the working hour, is the value of a day's labor-power divided by the number of hours of the average working day.

If the capitalist would employ a laborer 6 hours instead of 12, only 6 hours would represent the worker's wages for a half day; that is, he would pay the worker half of his wages.

The longer the working day in any branch of industry, the lower are the wages. The price of labor being given, the daily or weekly wage depends upon the quantity of labor-power expended.

The lower the price of labor-power, the greater must be the quantity of labor, or the longer must be the working day for the laborer to secure even a miserable average wage. The lowered price of labor acts here as a stimulus to the extension of the labor-time.

**Piece Wages**

Wages by the piece are nothing other than a converted form of wages by time just as wages by time are a converted form of the value of labor-power.

If a worker in the average can produce in 1 hour 12 pieces of a certain article and he is paid 60¢ the hour, he gets paid for 1 piece 5¢. The capitalist may pay him by the piece, say 4 1/2¢ and intensifies the worker's labor by so doing. At the same time, he has not to watch the worker so carefully, for the worker will labor the much harder to make enough to get his price.

Piece wages are only a modified form of time wages.

Piece wages is that form of wages which is most in harmony with the capitalist mode of production.

Reading Assignment: Pages 616-670
Speakers' Assignment: 1) The production of absolute and relative surplus value.
2) Time wages.
3) Piece wages.
SESSION ELEVEN

Reading Assignment: Pages 618-670

First Speaker: The Production of relative and absolute surplus value.
Second Speaker: Time Wages.
Third Speaker: Piece Wages.

(Make necessary corrections)

The Accumulation of Capital

The conversion of money into means of production and labor-power is the first step in the different functions of capital. This takes place on the market, within the sphere of circulation. The second step is the production of commodities which contain the advanced original capital, plus a surplus value. These commodities must be thrown into circulation. Their value must be realized in money. This money must be converted into capital, etc. Such movement forms the circulation of capital.

So the first condition of accumulation is that the capitalist gets rid of his commodities, receives more money than he at first invested and then continues production with more capital.

In the interest of a better understanding of the process of accumulation we assume that the process of circulation is "normal", that means the capitalist gets always rid of his commodities, and this is assurance that there is no disturbance in the sphere of circulation.

Question: Is this so in reality?

No. In volume 2 Marx deals with all the different possibilities in the sphere of circulation.

But to find out whether the real difficulties of capitalism are to be found in the sphere of circulation we dismiss theoretically this difficulty. We want to find out whether capital could harmoniously advance if the problems of circulation would not exist.

Later on, we take up all questions concerning circulation.

During this analysis we assume that the circulation is "normal" and that, outside of the proletariat there are only capitalists in the world.

Question: Is this so? No, it is not. Even if the capitalists...
extract surplus labor from the workers, even if the capitalist is his first appropriator, he is by no means the ultimate owner of this surplus value. He has to share with other capitalists, with landowners, etc., who fulfill other functions in the complex system of production. Surplus value splits up into various parts. Its fragments fall into different categories and have various forms, such as profit, interest, merchants' profit, rent, etc. In Volume 3 Marx deals with this subject.

But we are trying to find the inner law of capitalism, which on the surface we cannot see in operation but which is nevertheless of great importance. So we abstract from all these differentiations and try to take up capital accumulation in its essential form, not disturbed by side-tracking influences but "normal", ideal.

We treat the capitalists as the owners of all the surplus value. We look at a theoretical world of only workers and capitalists. By so doing we do not get a picture of reality. However, we do get an understanding of the inner laws of capitalist production which determine the reality.

Marx says, (page 619), "So far as accumulation takes place, the capitalist must have succeeded in selling his commodities, and reconverts the sale money into capital. The breaking up of surplus value into fragments neither alters its nature nor the condition under which it becomes an element of accumulation. We therefore assume no more than what actually takes place. The simple fundamental form of the process of accumulation is obscured by the incident of the circulation which brings it about, and by the splitting up of surplus value. An exact analysis of the process, therefore, demands that we should, for a time, disregard all phenomena that hide the play of its inner mechanism."

Simple Reproduction

Whatever the form of the process of production in a society, it must be a continuous process.

Marx wrote, "A society can no more cease to produce than it can cease to consume."

Therefore, looking at society as a whole, every social process of production must be at the same time a process of reproduction.

What is consumed in raw material and machinery must be replaced in order to use it once more.

If you use up 2 million pounds of cotton and 10,000 spindles (looms) in order to have enough clothes; you have enough clothes for a time but must reproduce this cotton and spindles for new clothes when the old ones are worn out.
If production is a capitalistic one, so must be reproduction.

If $100 have brought a capitalist $20 surplus value in a process of production, so in order to get again $20 surplus value he has to invest $100 again.

If a capitalist does this over and over again, getting all the time $20 surplus, this surplus is to him a steady revenue.

If he consumes the $20 each time, then we have what Marx calls simple reproduction.

The purchase of labor-power for a fixed period is the prelude to the process of production.

But the laborer is not paid until after he has expended his labor-power, and realized in commodities not only its value but surplus value.

So the worker has not only produced surplus value but also the fund out of which he himself is paid, the variable capital. His employment lasts only so long as he continues to re-produce this fund.

What the worker gets back in wages is a portion of the product that is already produced by him.

If you take the whole working class and the whole capitalist class, you see at once that the capitalists are constantly giving to the workers wages in the form of money which in reality is only a portion of the commodities produced by the workers and appropriated by the capitalists.

The workers give the money back to the capitalists and in this way get their share of their own product.

This simple transaction is veiled by the commodity-form of the product and the money-form of the commodity.

This process eliminates the idea that the workers cannot buy back because the wages are so low. Capitalists are not interested in the worker buying back more, but just the opposite. An individual capitalist interested in the production of consumption goods for the working class, is, as an individual, interested in higher wages for the workers (not for his own workers) in order to faster accumulate as an individual. A capitalist who only sells diamonds is interested in very low wages in order to make his capitalist customer spend more money on his commodity—diamonds.

But considering the capitalist class as a whole, these differences in opinion vanish at once.
The less the commodities, or money, the worker gets, the more the capitalist has. The capitalist is interested only in his own share. The workers represent to him no market, but people for whom he feels sorry and who must eat.

Capitalism is only interested in surplus value. Surplus labor can only be gained by shortening the necessary labor-time or lengthening the surplus labor-time. Both ways have one effect on the workers—cutting from their own share of the product they produce. The worker never gets more than he needs for his reproduction, so the capitalist class as a whole cannot think to let him buy back more.

Variable capital is only a particular historical form of appearance of the fund for providing the necessities of life to the workers.

Surplus labor is always the same, only its form changes.

Consider a peasant who has enough land to provide by working on it during 3 days a week for himself. The rest of the week he works for the feudal lord. Now if the feudal lord takes the land from the peasant, and the peasant is working the whole week for the lord, that does not alter the fact that he still has to work three days for himself. So it was with the slave. So it is with the worker.

Marx (P. 687) "The maintenance and reproduction of the working class is always necessary, a necessary condition to the reproduction of capital."

But the capitalist may safely leave its fulfillment to the laborers' instinct of self-preservation. All the capitalist cares for is to reduce the laborers' individual consumption to what is strictly necessary.

Capitalist production must be a continuous connected process, a process of reproduction, producing not only commodities and surplus value, but producing and reproducing the capitalistic relation—on the one hand the capitalist, on the other the wage worker.

Reproduction must lead to accumulation in capitalism, even if it would start out with simple reproduction.

A capital of $1000 makes yearly $200 surplus value. If this surplus value would be consumed every year then in 5 years the surplus value consumed would be 5 times $200 or $1000, equal with the capital advanced by the capitalist.

If only a part, say $100 would be consumed, then at the end of 10 years 10 times $100 would be equal to the capital of $1000.
Production would have come to an end.

Of course the capitalist would still have the machinery, the $1000 actual capital, the material things. But we are dealing with value. The machinery would have no more value, it would be out of date.

When a person "gets through" with all of his property, by taking upon himself debts equal to the value of that property, it is clear that his property represents nothing but the sum total of his debts.

Therefore, simple reproduction sooner or later, converts every capitalist into an individual who accumulates capital; it converts every capital into accumulated capital, or capitalized surplus value.

Conversion of surplus value into capital.

Up to this point we have found out how capital produces surplus value. Now we will see how surplus value becomes capital.

Employing surplus value as capital, reconverts it into capital, is called Accumulation of capital.

What is accumulation? Let us consider it from the standpoint of an individual capitalist.

Suppose a spinning factory, for example, has a capital of $10,000.

Constant $8000 ---- Variable $2000

Production: 240,000 pounds of yarn yearly which has a value of $12,000. The rate of surplus value 100%. The capitalist put in $10,000. His production brings him $12,000 or 240,000 pounds of cotton. Then his surplus is 40,000 pounds of cotton which costs $2000. This $2000 surplus value converted into new capital would mean that the capitalist will add to it 4/5 or 11,600 to the constant capital and 1/5 to wages. Then this new $2000 bring in a surplus value of $400.

To accumulate it is necessary to convert a portion of the surplus product into capital.

Consequently a part of the annual surplus labor must have been applied to the production of additional means of production and subsistence, over and above the quantity of those things required to replace the capital advanced. Surplus value can only become capital because the surplus product already comprises the material elements of new capital.

In order to allow those elements actual functioning power as capital, the capitalist class requires additional labor.
If the exploitation of the existing workers does not increase, then, additional labor power must be found.

The mechanism of capitalist production needs not only a class dependent on wages but also for its increase.

It is only necessary for capital to incorporate this additional labor with the surplus means of production and the conversion of surplus value into capital, and the accumulation is complete.

Accumulation resolves itself into the reproduction of capital on a progressively increasing scale. The circle in which simple reproduction moves alters its form, it changes into a spiral.

If we forget for a moment that the capitalist eats, and this fact does not change our system in any way, then we see that if a surplus of $2000 were capitalized and brought $400, this $400 capitalized would bring $80, and so on.

The original capital we started out with was $10,000. How did the capitalist get this $10,000? “By his own and the labor of his forefathers” will the capitalist say. This is not so. Can he say the same about the additional $2000 -- $400 -- $80, and so on? No. In both instances he could not say so.

Later, by primitive accumulation, we will see how the capitalist gets started; he, as Marx put it “is like the conqueror who buys commodities from the conquered with the money he has robbed them”.

But by the additional capital we can clearly see that it is made up of unpaid labor: by robbing the workers of their products.

This is what is called “creating capital out of capital”.

The original transformation of money into capital has the following results:
1) The product belongs to the capitalist, not to the laborer.
2) The value of this product comprises a surplus value which has cost the worker labor power but the capitalist nothing, yet it becomes lawful property of the capitalist.
3) The laborer has reproduced his labor power and can sell it once more, if he finds a buyer for it.

The production of commodities does not impose itself upon the whole society until wage labor becomes its basis, and only then does it unfold all its powers. To say that the intervention of wage labor adulterates the production of commodities is to say that the production of commodities must not develop.

Even in the case of simple reproduction all capital, whatever its original source, becomes converted into accumulated capital.
First we assumed that the capitalist (simple reproduction) consumes all the surplus value himself. Then we said that the capitalist does not consume at all but, instead, capitalized the whole of the surplus value. Both things, however, do not take place. The capitalist is doing both things at the same time. He eats from the surplus and he capitalizes a part of the surplus value. In order to eat more than before he accumulated the surplus value.

Therefore, with a given mass of surplus value, the larger one of these parts, the smaller the other. If the capitalist eats much, he can accumulate less and vice versa. The part of the surplus value that he does not eat is "saved" by him.

Marx: "Fanatically bent on making value expand itself, he ruthlessly forces the human race to produce for production's sake. He thus forces the development of the productive forces of society and creates those material conditions which alone can form the real basis for a higher form of society, a society in which the full and free development of every individual forms the ruling principle."

The development of capitalist production makes it constantly necessary to keep increasing the amount of the capital laid out in a given industrial undertaking, and competition makes the eminent laws of capitalist production to be felt by each individual capitalist as external laws. It compels him to keep constantly extending his capital in order to preserve it, but the only way of extension is by means of progressive accumulation.

The proportion in which surplus value breaks up into capital and revenue, the magnitude of the accumulated capital depends clearly on the absolute magnitude of the surplus value.

Suppose that 80% were capitalized and 20% eaten up, the accumulated capital will be $3400 by a total surplus of 3000, and 1200 with a total surplus of 1500.

Thus the constant tendency of capital is to force the cost of labor back towards zero. (Remember: The rate of surplus value depends on the rate of exploitation).

Therefore, a very important factor in the accumulation of capital is the degree of the productivity of labor, the degree of exploitation.

With the productive power of labor the mass of products increases in which a certain value, and therefore a surplus value of a given magnitude is incorporated.

The rate of surplus value remaining the same or even falling, so long as it only fails more slowly than the productive power of labor rises, the mass of the surplus product increases. Then the consumption of the capitalist may increase without a decreasing fund of accumulation.
But hand in hand with the increasing productivity of labor goes the cheapening of the labor and by that a higher rate of surplus value.

Then the same value in variable capital sets in motion more labor-power. The same value in constant capital is then embodied in more means of production, in more instruments of labor, etc. It therefore supplies more elements for the production of both use value and value.

In this case then, the value of the additional capital remaining the same or even decreasing, accelerated accumulation still takes place. Not only does the scale of reproduction materially extend, but the production of surplus value increases more rapidly than the value of the additional capital.

Generally it can be said that "with a given degree of exploitation of labor-power, the mass of the surplus value produced is determined by the number of workers simultaneously exploited; and this corresponds, although in varying proportions, with the magnitude of the capital."

Therefore, the more capital increases by means of successive accumulation, the more does the sum of value increase that is divided into consumption fund and accumulation fund. The capitalist can therefore live a more jolly life and at the same time show more abstinence. And, finally, all the springs of production act with greater elasticity the more its scale extends with the mass of the capital advanced.

What effect has this accumulation process on the workers?

Marx said (Page 571) that the most important factor in this inquiry is the composition of capital.

The composition of capital is to be understood in a twofold sense.

1st. On the side of value it is determined by the proportion in which it is divided into constant capital, or value of the means of production and variable capital, or value of labor-power, the sum total of the wages.

2nd. On the other side of material, as it functions in the process of production, all capital is divided into means of production and living labor-power. This composition is determined by the relation between the mass of the means of production employed, and the mass of labor necessary for their employment.

The 1st Marx calls Value Composition and the 2nd Technical Composition.

Between these two there is a strict correlation. To express this, Marx calls the value composition, insofar as it is...
determined by its technical composition and mirrors the changes of the latter, the organic composition of capital.

The many individual capitals invested in a particular branch of production have, one with the other, more or less different compositions. The average of their individual composition gives us the composition of the total capital in this branch of industry. Lastly, the average of these averages in all branches of production, gives us the composition of the total social capital of a country and with this alone we are now concerned.

Growth of capital involves growth of its variable constituents.

A part of the surplus value turned into additional capital must always be retransformed into variable capital.

If the composition of capital remains the same, that means that a definite mass of means of production constantly needs the same mass of labor-power to set in motion, then the demand for labor increases in the same proportion as capital. And the more rapidly, the quicker the capital increases.

With the opening of new markets, (Marx calls this special stimulus to enrichment) or new spheres for the outlay of capital, newly developed social wants, capital on a progressive scale, means also more or larger capitalists on one side, more wage workers on the other.

Accumulation of capital is therefore an increase of the proletariat.

Reading assignment: Pages 671-783

Speakers' assignments: 1) Simple reproduction.
2) Conversion of surplus value into capital.
3) Productivity of labor and accumulation.
SESSION TWELVE

Reading Assignment Pages 671-783

1st Speaker: Simple Reproduction.
2nd Speaker: Conversion of surplus value into capital.
3rd Speaker: Productivity of labor and accumulation.

Refer to the study of Session Ten.

The General Law of Capitalist Accumulation.

Under special stimulus enrichment (new markets, etc.) it might be possible that the demand for labor is greater than the supply. Then a rise in wages can take place. Marx: "A rise in the price of labor, as a consequence of accumulation of capital, only means in fact, that the length and weight of the golden chain the wage worker has already forged for himself allows a relaxation of the tension of it." (Page 677). But this does not alter the general tendency of accumulation.

Production of surplus value is the absolute law of this mode of production. Labor-power is only salable so far as it preserves the means of production in their capacity of capital, reproduces its own value as capital and yields unpaid labor as a source of additional capital.

The rise of wages would never reach a point at which it would threaten the system itself.

The same mechanism which makes wages rise brings them down again. When they endanger profits, accumulation stops, and wages must fall again.

The rate of accumulation is the independent variable; the rate of wages the dependent variable. (P. 679).

During a crisis the price of commodities falls and the value of money rises. In prosperity the price of commodities goes up and the value of money sinks. The bourgeoisie then explains: "With high prices, too little; with low prices, too much money is in circulation." In the same manner they explain the wage rates with too many or not enough workers.

But the law of capitalist production is at the bottom of the law of population.

The correlation between accumulation of capital and the rate of wages is nothing else than the correlation between the unpaid labor transformed into capital and the additional
paid labor for the setting in motion of this additional capital.

It cannot be otherwise. As in religion man is governed by the products of his own brain, so in capitalist production he is governed by the products of his own hand.

According to Marx the development of the productive power is the motor of the historical development.

With the new productive powers the people change their mode of production and with it the way and means of making their living.

Capitalism, more than any other mode of production before it, (on account of the value relation) develops the productive power. This is why capitalism was necessary and a fast step forward in the emancipation of the human race.

The development of the productive power is reflected in the technical composition of capital, or in the growth of the means of production. This again is reflected in the value composition by the increase of the constant capital at the expense of the variable.

If there was once 50% constant and 50% variable it will in the course of accumulation change to 80 constant and 20 variable, or to even greater disproportion.

If a spinning factory around the year 1800 had 1/2 constant and 1/2 variable it may have today 7/8 constant and 1/8 variable; but at the same time the mass of raw material, the mass of labor, mass of commodities is many hundred times larger than in 1800:

With the increasing productivity of labor-power, not only does the mass of the means of production, consumed by it, increase, but the value compared with the mass diminishes. The value therefore rises absolutely, but not in proportion to the mass.

(Blackboard)

<table>
<thead>
<tr>
<th>Constant capital</th>
<th>Value 500</th>
<th>mass</th>
<th>10 machines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2500</td>
<td>100 machines</td>
</tr>
</tbody>
</table>

The mass is 10 times developed, but the value only 5 times.

The increase in the difference between constant and variable capital is therefore much less than that of the difference between the mass of the means of production into which the constant and the mass of labor-power into which the variable capital is converted. The former difference increases with the latter, but in a smaller degree.
To increase 3000 to 3600 variable, it was necessary to raise the original capital under this new organic composition 3 times. A 20% increase of the variable capital makes a 300% increase of the total necessary.

The development of the productive power is necessary. Marx, P. 656: "With the accumulation of capital, the specific mode of production develops and with the capitalist mode of production accumulation of capital. Both these economic factors bring about that change in the technical composition of capital by which the variable constituent becomes always smaller as compared with the constant."

Every accumulation becomes the means of new accumulation. With the accumulation of capital so the number of capitalists increase.

With the increasing mass of wealth which functions as capital, accumulation increases the concentration of this wealth in the hands of individual capitalists, and so widens the basis of production on a large scale. The growth of capital is effected by the growth of many individual capitalists.

The battle of competition is fought by cheapening of commodities. The cheapness depends on the productivity of labor. And this again on the scale of production. So the larger capitalist can beat the smaller one.

Credit becomes a powerful weapon in the struggle of competition.

This again opens new spheres for new capitalists. So concentration and centralization go sometimes hand in hand; but at the same time the bigger capitalists defeat the smaller ones.

Centralization in a certain line of industry would have reached its extreme limits if all the individual capitals invested in it would have been amalgamated into one single capital. (Page 652).

Centralization supplements the work of accumulation by
enabling the industrial capitalists to expand the scale of their production.

The economic result is always the same, even in State Capitalism: Centralization intensifies the accumulation.

The technological composition which mirrors the organizational composition takes place in this way as far as constant and variable capital are concerned.

If it was originally like—1—1, it will become:

2 - 1, 3 - 1, 4 - 1, 5 - 1, 6 - 1, etc.

So that when the capital increases, not more than 1/2 but 1/3, 1/8, etc. it is transformed into labor-power; and 2/3, 7/8, etc., into means of production.

By this a surplus labor population is a necessary product of capitalist accumulation. It is the law of population peculiar to the capitalist mode of production. (An abstract law of population exists for plants and animals only, and only insofar as man has not interfered with nature).

This surplus population becomes at the same time a necessity for capitalism. It forms the industrial reserve army for the changing needs of the self-expansion of capital, a mass of human material always ready for exploitation. The cyclical character of production depends also on the existence of an industrial reserve army.

In the childhood of capitalism the composition of capital changed slowly, and as a result there was a steadily growing demand for laborers. This tendency increases with faster accumulation and higher organic composition.

In this state, the general movements of wages are exclusively regulated by the expansion and contraction of the industrial reserve army, and this again corresponds with the periodic changes of the industrial cycle.

Read Marx, Page 707. "The greater the social wealth......concern us here."

Read Page 708. "The law......own self expansion."

Read Pages 708-9 "But all methods......in the form of capital."

Reading assignment: Pages 784 to the end.
Speakers Assignments: 1) Organic Composition of Capital.
2) The Industrial Reserve Army.
3) Accumulation.
SESSION
THIRTEEN

CONCLUDING SESSION

Reading Assignment: Pages 784 to the end.

Speakers' Assignments: 1st, Organic Composition of Capital. 2nd, The Industrial Reserve Army. 3rd, Accumulation.

RECAPULATE

Technical Composition; Value Composition; Organic Composition.

We have dealt with "Social Capital" — one capitalist, with only labor at the other pole.

Development of the organic composition is first a natural process of the development of the productive powers of society.

It has a value character in capitalism and this is the reason why it develops so fast.

It cannot develop in regard to the necessities of mankind but in regard to the necessities of producing surplus value; in other words, accumulation.

When it comes in conflict with this historical form (capitalism, — value form) of the mode of production, then a new society must free the productive powers from this chain.

Accumulation: Conversion of surplus value into capital.

With the accumulation of capital the accumulation of the workers goes hand in hand.

The accumulation of workers is necessary for accumulation. But at the same time, due to the organic composition, in relation to the total capital the workers become less. The creation of a surplus population is the result.

The reserve army is necessary, first to have the workers ready for the creation of new spheres of production and, second, to check the wages of the workers.

The theory of supply and demand on the labor market. The industrial reserve army is the law of population in capitalism.

Explain the limitation of the wage movement. When can the wages rise and how far can they rise, and what brings them
down again?

With the development of the organic composition the mass of the means of production and the products are increasing, but its value is decreasing at the same time.

(Blackboard) Constant Capital: Value 500: mass 10 Machines
" " " 2500: mass 100 Machines

Here the mass has 10 times developed but the value only 5 times. This goes for commodities, labor-power, etc.

By this, the increase in the difference between constant and variable capital is less than the difference between the means of production and labor-power.

(Blackboard) Capital: 6000
Constant: 3000 Variable: 3000 (50%)

Capital: 18000
Constant: 14400 Variable: 3600 (20%)

To increase 3000 to 3600 variable it was necessary to accumulate from 5000 to 18000 total capital. A 20% increase in the variable capital makes an 80% increase in the constant necessary. 200% in total capital.

Centralization allows production on a larger scale. It intensifies the accumulation.

Capitalism will develop in this way:

1:1 .... 50:50 .... $300:$300 .... C.C. 1/2 .... v.c. 1/2
2:1 .... 100:50 .... 700:350 .... C.C. 2/3 .... v.c. 1/3
3:1 .... 150:50 .... 1200:400 .... C.C. 3/4 .... v.c. 1/4
4:1 .... 200:50 .... 1600:450 .... C.C. 4/5 .... v.c. 1/5
5:1 .... 250:50 .... 2500:500 .... C.C. 5/6 .... v.c. 1/6

Less and less variable capital in relation to the means of production and as a result unemployment.

So the conflict between the material development and the social form of production expresses itself in the crisis.

Capitalist production is nothing else but a "utilization" process. Capital only produces capital if it produces surplus value. If this cannot be done accumulation will stop.

Remember: The rate of surplus value: 100%
Necessary labor-time: 4
Surplus labor-time: 4
S: 100 100% Rate of surplus value: (Constant Capital: 400 total Capital: 500)
V: 100

Rate of Profit S: 100 20% Rate of surplus value: 100%
C: 500 "" profit : 20%

Let us see what this would mean in relation to the development of the organic composition of capital:

300 constant, 300 variable, rate of surplus value: 100%
rate of profit: 50%

100 constant, 350 variable, rate of surplus value: 100%
rate of profit: 33 1/3%

Fall in the r. of p. would lead to the end of capitalism if not simultaneously with it, the mass of profits would increase.
(Back to page 55, blackboard)

Value 500: 10 Machines
Value 2500: 100 Machines

The rate of surplus value: 100% because surplus labor-time and labor-time:

The development of the productive power has made possible:

Surplus labor-time: 6
Nec. labor-time: 2

Here the rate of surplus value is 300%

With the fall in the rate of profit the mass of profit increases.

Let us follow this example:

<table>
<thead>
<tr>
<th>Year</th>
<th>C: 10% accumulation</th>
<th>V: 5% accumulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>c: 200 000-v: 100 000</td>
<td>R of S.V. 100% R of Proc. 33.3%</td>
</tr>
<tr>
<td>2</td>
<td>c: 220 000-v: 105 000</td>
<td>100% 32.6%</td>
</tr>
<tr>
<td>3</td>
<td>c: 242 000-v: 110 250</td>
<td>100% 31.3%</td>
</tr>
<tr>
<td>10</td>
<td>c: 471 254-v: 155 130</td>
<td>100% 24.7%</td>
</tr>
<tr>
<td>11</td>
<td>c: 518 357-v: 162 888</td>
<td>100% 20%</td>
</tr>
<tr>
<td>15</td>
<td>c: 758 925-v: 197 988</td>
<td>100% 47.6%</td>
</tr>
<tr>
<td>20</td>
<td>c: 1222 252-v: 252 691</td>
<td>100% 34.2%</td>
</tr>
<tr>
<td>21</td>
<td>c: 1544 477-v: 255 845</td>
<td>100% 49.2%</td>
</tr>
<tr>
<td>30</td>
<td>c: 3170 200-v: 411 602</td>
<td>100% 34.5%</td>
</tr>
<tr>
<td>35</td>
<td>c: 5105 637-v: 525 319</td>
<td>100% 27.9%</td>
</tr>
</tbody>
</table>

The mass of profit compensates the fall in the rate of profit.
But as the exploitation reaches its limits than the mass falls also.

(In this example, we did not accumulate faster as the rate of exploitation had increased; we have accumulated under the)
condition of accumulating under a rate of exploitation of 100%.
In reality the 300% and 200% rate of surplus would have hastened the accumulation process, that means more constant capital (to make this 300% exploitation possible) but even under our circumstances the rate of profit has dropped in spite of increasing the mass of profit.

Marx, Volume 3: "The fall in the rate of profit shows the relative fall to the surplus value of the advanced capital."

The fall in the rate of profit is an index that shows the relative fall in the mass of profit.

Capital has grown from 1900 to 1937. (See below)

So has the organic composition; but because the organic composition develops, an always bigger part of the s.v. must go into accumulation of constant capital. The amount which is left for the capitalist and worker becomes smaller.

That means, the surplus can grow absolutely and still does not suffice to feed the capitalist and the worker. Every surplus made is needed for the accumulation, and if there is no accumulation there is a crisis.

You may ask, Why doesn't the capitalist stop this process?

The mass that is necessary for the continuation of the accumulation process is not dependent on the rate of profit but on the mass of the existing total capital. The accumulation goes on with the power it already possesses, not in relation to the rate of profit.

The fall in the rate of profit and a faster accumulation is the same process; both express the development of the productive power.

Even if a capitalist concern would only use its fixed capital

*A-C - Accumulated Constant
A-V - Variable
C-C - Capitalists' Consumption Fund
to 50% it would be forced (by competition) to renew its appearance not in relation to the 50% used but in relation to the 100% of the existing fixed capital.

But let us look at a process of accumulation through crisis and prosperity and find the general tendency working there.

Marx, Volume 3, P. 303. "The development in the productive power of labor creates in the falling rate of profit a law which turns into an antagonism of this mode of production at a certain point and requires for its defeat periodical crisis."

General tendency of capitalist accumulation: Wealth on the one hand and pauperization on the other.

With the accumulation of capital the accumulation of poverty goes parallel. This absolute law is modified by different circumstances, not changed—only modified. This law is, as the inner law, working through all modifications.

Accumulation, no matter how it may become modified, has as the last result misery for the workers to the same extent as wealth is produced.

Accumulation can only go on as long as there is profit to be made and as long as there is profit capital will and must accumulate. A crisis could only be explained in showing that due to some reason capital cannot make any more profit.

As long as there is sufficient profit accumulation goes on. Where there is insufficient profit the crisis sets in, followed by a time of depression. If this depression would not be stopped then the collapse would come.

Accumulation goes on in an ever higher organic composition.
But labor is the only source to capitalize capital. But relatively there is, as accumulation goes on, always less and less labor: the rate of profit drops all the time, but at periods the mass of profit gains. As long as this goes on, capitalism is on an upward trend in spite of the drop in the rate of profit. But when, as we saw, the mass also fails, or is not sufficient enough to bring the organic composition higher, then the accumulation stops. The crisis is there. And that would mean the end of capitalism, because it is the end of profit-making. The class struggle sharpens, the misery becomes so great that the revolution takes place.

The crisis sets in at the peak of accumulation. It was not there before.

So we call it Over-accumulation.

Money from the already existing capital is still coming in, but nobody wants it because it would not bring profit; so it swamps the market. Over-production of capital. Accumulation stops. All the industries, which were engaged in producing for accumulation on the given accumulation rate get rid of their workers. Capitalists do not buy any material for the industries, so the production in these industries stops; production of consumption goods ceases because the feeding of laborers becomes unnecessary.

The capitalists are going out of business but every individual capitalist tries to save himself. He can only do so in the struggle of competition. This means he has to bring up his productive power in order to produce cheaper than the other capitalist. He applies new methods to his production (higher organic composition) by which he can sell over his individual value but under the social value. He gains an extra profit and more capital, but which gradually are nullified; for as soon as he does so, other capitalists apply the same methods which gradually become the social methods and the value the social value. The capitalist in the same time always tries to get more capital, because his profit is determined by the capital he possesses. If one capitalist makes in a certain production sphere an extra profit, more capital flows into this sphere, and soon the rate of profit is the same as the social rate. But then the profit is determined by the capital that the capitalist possesses.

The higher organic composition is a necessity for capital in order to live. So in trying to overcome the impossibility of making profit, they develop this impossibility only on a higher scale.

In order to overcome the crisis (look at the drawing on page 72) the impossibility of utilization must be overcome. This brings us to the cyclical character of the crisis.
Counter tendencies:

Higher rate of profit through the development of the productive power. Rationalization. Concentration:

4 Factories: \[ 50:c \quad 50:v \]
\[ 40:c \quad 60:v \]
\[ 35:c \quad 65:v \]
\[ 25:c \quad 75:v \]
\[ \underline{150:c \quad 250:v} \]

Concentration of 4 to 3 factories with the same production:

\[ 90:c \quad 30:v \]
\[ 35:c \quad 65:v \]
\[ 25:c \quad 75:v \]
\[ \underline{150:c \quad 175:v} \]

There will be unemployment, but for sometime more profit.

More exploitation, intensification, more commodities in loss

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time, shortening of the necessary labor-time.

Shortening of the time of turnover: better circulation process.

With this, more money on the market. The rate of profit is now determined by a smaller total capital.

New sphere of production.

Doing away with ground rent.

Doing away with the merchant profit.

Killing of the profit-eating middle strata.

Devaluation. (Capital becomes valueless due to the development of productive power).

War - bankruptcy.


Monopoly.

Death crisis if all those counter tendencies are not strong enough to compensate the general tendency that leads to the breakdown.

But before this the revolution will take place.

The crisis due to the over-accumulation of capital is also always a crisis of over-production of commodities.

1) **Primitive Accumulation**

The accumulation presupposes surplus value; the whole movement as a circle.

M-C-M→ C-M

Where was the beginning?

Money and commodities are no more capital than the means of production and means of subsistence.

They were transformed into capital. (Use and Exchange Value).

There is no capital without free labor; this means people who have nothing to sell but their labor-power.

The capitalist system presupposes the complete separation of the laborers from all property in the means of production.
As soon as capitalist production is working it reproduces this social relation.

The primitive accumulation is nothing else than the historical process of divorcing the producers from their means of living; that is, the means of production.

It appears as primitive, because it forms the pre-historic stage of capital.

The economic structure has grown out of feudalism.

The dissolution of feudalism sets free the elements for the development of the capitalist mode of production.

Free labor could only be there when the laborer was not anymore bound to the soil.

The guilds had to be dissolved to overcome their labor regulations.

On the one side the emancipation from serfdom and guilds, on the other the new form of exploitation, wage work. But this is at the same time the development of the productive power of society.

The bourgeois revolution of the 16, 17, and 18 centuries: the expropriation of the agricultural producers, of the peasants from the soil, is the basis of the whole process.

The history of this process in different countries varies with different periods. But essentially it is always the same.

In England it had its "classical" form. Illustrations are given by Marx.

In England serfdom had practically disappeared in the last part of the 14th century.

They had free peasants, who worked part time for the feudal lord and the rest of the time for themselves.

The prelude of the revolution, for the foundation of capitalism, was played in the first decade of the 16th century.

A mass of free proletarians were hurled on the labor market by the breaking up of the feudal retainers. The rapid rise of the Flemish wool manufacturers and the rise in the price of wool gave the direct impulse to the evictions of the old feudal lords.
The new nobility was a child of the time, for which money was the power of all powers.

Transformation of land into sheepwalks.

Marx illustrates the process of driving the people from their land and using the land for the manufacture of wool and the free labor for the production of wool commodities.

Primitive accumulation: The expropriation of the church proport the robbery of the common land, the usurpation of feudal and clan property, its transformation into modern private property under circumstances of reckless terrorism.

They conquered the field for capitalist agriculture and created for the town industries the necessary supply of "free" laborers.

The laborers could not be absorbed as fast as they were thrown on the market. They could not fast enough adapt themselves to the new conditions. The result— beggars, robbers, vagabonds.

For this reason there was passed bloody legislation in Europe against all vagabonds. Flogging, branding, killing and hard labor prisons, and various forms of torture, were in full force.

Marx gives some laws for the sake of illustration.

In the beginning, (not much machinery) variable capital was dominating. The demand for wage labor grew rapidly with every accumulation. A large part of the national product, changed later in the fund of capitalist accumulation, then still entered into the consumption fund of the laborer. Then the period of legislation of labor took place.

Laws to set the height of wages, laws against trades unions, which was dropped only in 1925, etc.

We know by now how the proletariat was created, but what about the bourgeoisie? Let us begin with the capitalist farmer.

This was a slow process going on throughout centuries.

The serfs as well as the free small proprietors held land under very different economic conditions.

In England the first form of the farmer is the bailiff, himself a serf. He was replaced by the farmer, whose landlord provides him with seed, cattle and implements. He exploits more laborers.

He advances on half of the stock, the landlord on the other half. They divide the products.
This form disappears and makes place to the farmer proper, who makes his own capital bread by employing laborers and pays a part of the surplus product to the landlord as rent.

With the agricultural revolution, (such as wool manufacturers) he enriches himself very fast. With that, he develops in the same time the industrial capitalists.

The expropriation and eviction of a part of the agricultural population not only set free for the industrial capitalists the laborers, their means of subsistence, and material for labor, it also created the home market.

In fact, the events that transformed the small peasants into wage laborers and their means of subsistence into material elements of capital, created at the same time a home market for the capitalists.

Formerly the peasants produced the means of subsistence and the raw material for themselves and they consumed them. Now these things had become commodities; the large farmer sells them on the market, he finds this market in manufacturers.

Many small guildmasters transformed themselves into capitalists.

The money capital formed by means of commerce was prevented from turning into industrial capital by the feudal constitutions, (Guild organization).

With the breakdown of feudalism this was done away with.

The discovery of gold and silver in America, the beginning of looting of the East Indies, Africa as the commercial hunting ground for slaves, signalized the dawn of capitalist production.

Force is the midwife of every old society pregnant with a new one. It is in itself an economic power. (History of capitalism from the 15th century, the Netherlands, Spain, etc.)

Marx illustrates the brutal process of the outspreading of capitalism. Robbery, killing, Java in 1750 equalled 80,000; 1615, 18,000).

Thus colonial systems ripened like a hot house plant. Trade and navigation developed.

Today industrial supremacy implies commercial supremacy. In the period of manufacture it was the commercial supremacy that gave the industrial predominance. This is the reason colonization played such a powerful role.
The bank system developed too. Bankers loaned (private institution) money to the government. They printed money. In the same time the international credit system has developed.

So capitalism spread.

The modern system of taxation was necessary to cover the expense of interest by the government to the banking capital.

Marx: "Capital comes into the world dripping from head to foot, from every poor, with blood and dirt."

In western Europe the process of primitive Accumulation is almost completed. Here the capitalist regime has either directly conquered the whole domain of national production, or, where economic conditions are less developed, it at least, indirectly controls those strata of society which, belonging to the antiquated mode of production, continue to exist side by side with the gradual decay.

But in the colonies the capitalist regime comes into collision with the resistance of the producer, who as the owner of his condition of labor, employed that labor to enrich himself, instead of the capitalist.

That brings about a struggle between them.

The capitalist tries to do away with the competition on exploitation by force impossible. Or by sharing with the original exploiter if necessary. (India) systematic colonization is nothing else than the primitive accumulation abroad.

Exploitation of labor in the colonies is the aim of capitalist colonization, also raw material.

Historical Tendencies of Capitalist Accumulation.

We know by now, how capital started through primitive accumulation. We examined the general law of accumulation and find that it leads directly to wealth on one side and poverty on the other. Accumulation of capital is the accumulation of misery for the workers.

What is the historical tendency of accumulation?

Private property, as the antithesis to social, collective property, exist only where the means of labor and the external condition of labor belong to private individuals.

At a certain stage of development it brings forth the material agencies for its own dissolution. From that time onward new forces and new passions spring up in the bosom of society. But the old social organization fetters them; keeps them down. The old social organization must be annihilated.
Capitalism was the expropriation of a mass by a few. Centralization takes place. One capitalist kills many. The expropriators are expropriated. The development of productivity. The negation of negations. The expropriation of the few by the mass.

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ERRATA

Page 68 - second line from the bottom; continued on page 69-first line from the top should read:

( In this example, we maintained until the tenth year a rate of surplus value of 100%. Later we adopted a rate of 200% and another of 300%. With the increase in exploitation the growth of the mass of profit compensates for the fall in the rate of profit. But this rate of surplus value has to be increased constantly to compensate for the fall in the rate of profit.)
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