

# PLANNING MODELS FOR TEAM SPORTS

Conditional perspective

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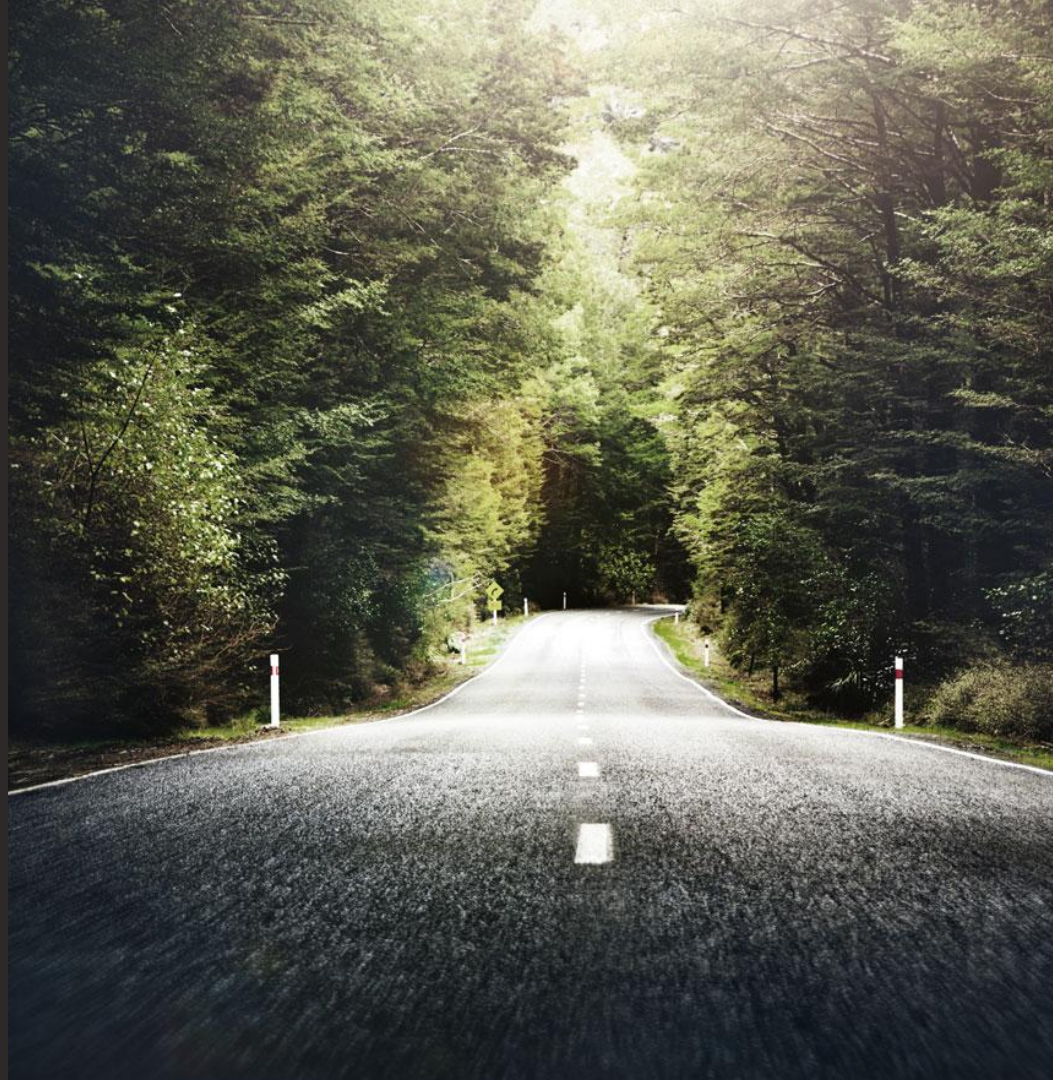
ABOUT US

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HISTORICAL EVOLUTION

3

STRUCTURED TRAINING



1

**ABOUT US**

2

**HISTORICAL EVOLUTION**

3

**STRUCTURED TRAINING**



## TEAM!

For many years teamwork and the contribution of knowledge has been a fundamental aspect. Sports Performance Area. Team Sports.

# TEAM!

Sports Performance Area FCB



# WHOA!

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## **INTRODUCTION !**

Importance of planning in team sports.  
Objectives and factors to consider.

1

ABOUT US

2

HISTORICAL EVOLUTION

3

STRUCTURED TRAINING



## WHERE WE COME FROM...

FROM SIMPLE TO COMPLEX ...

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# Historical evolution:

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Behaviorist and mechanistic methods of the 20th century.  
XXI century integrative approaches.

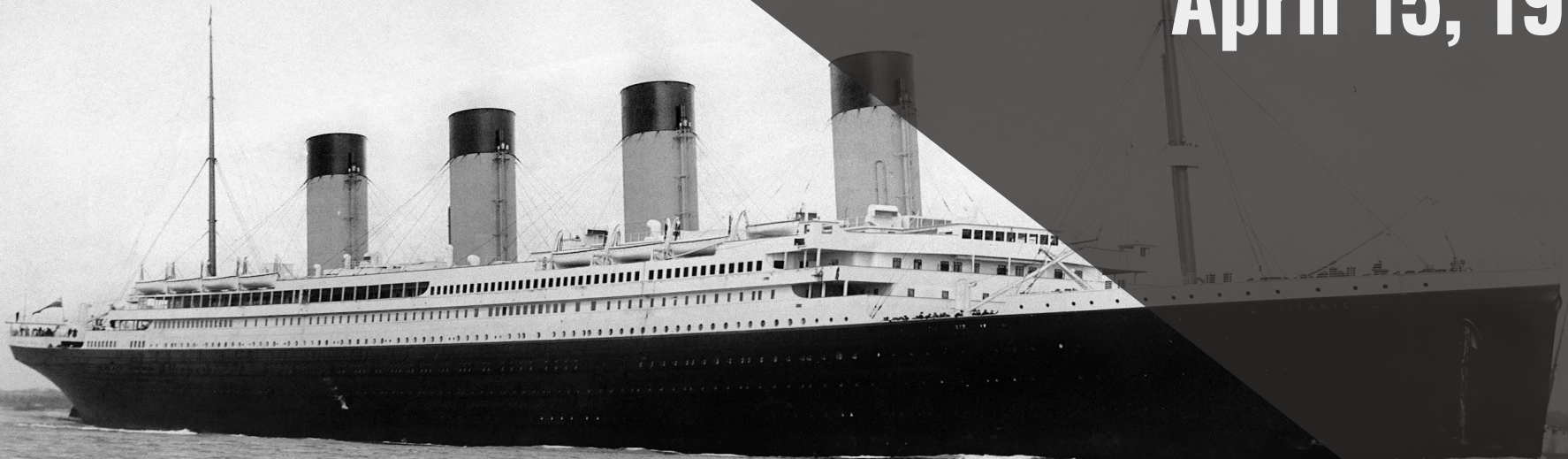




**Paris 1900**

# Sinking of the Titanic

## April 15, 1912



# WHERE WE COME FROM...

## ORGANIZATION

### **MURPHY (1913) Y KOTOV (1916)**

Organization of training activities  
Progression  
State of fitness at the desired  
time of the competition.

Divided into three training cycles:

1. General (6-8 weeks)
2. Special (8 weeks)
3. Core competencies (4 weeks).

### **K. GRANTYN (1939):**

Annual training cycle.

Three major periods.

Precise contents in each of them.

Competition in the best possible  
shape.

### **LETUNOV (1950):**

The division into periods.

Three stages of preparation.

A general.  
A competitive  
Decreasing fitness.

Biological adaptation.

# 1948, London Olympic Games



# WHERE WE COME FROM...

## Undulating changes of physiological functions

### MATVEYEV (1956):

Given the undulating nature of the biological response to the training load, it seeks to achieve an optimal relationship between training rhythms and undulating changes in physiological functions.

It defines the sport form and proposes its development cycle.

The development cycle comprises three interdependent periods which are the building.

- Preparatory period.
- Conservation (period of competitions).
- Sporadic loss of this form (transition period).

# WHERE WE COME FROM...

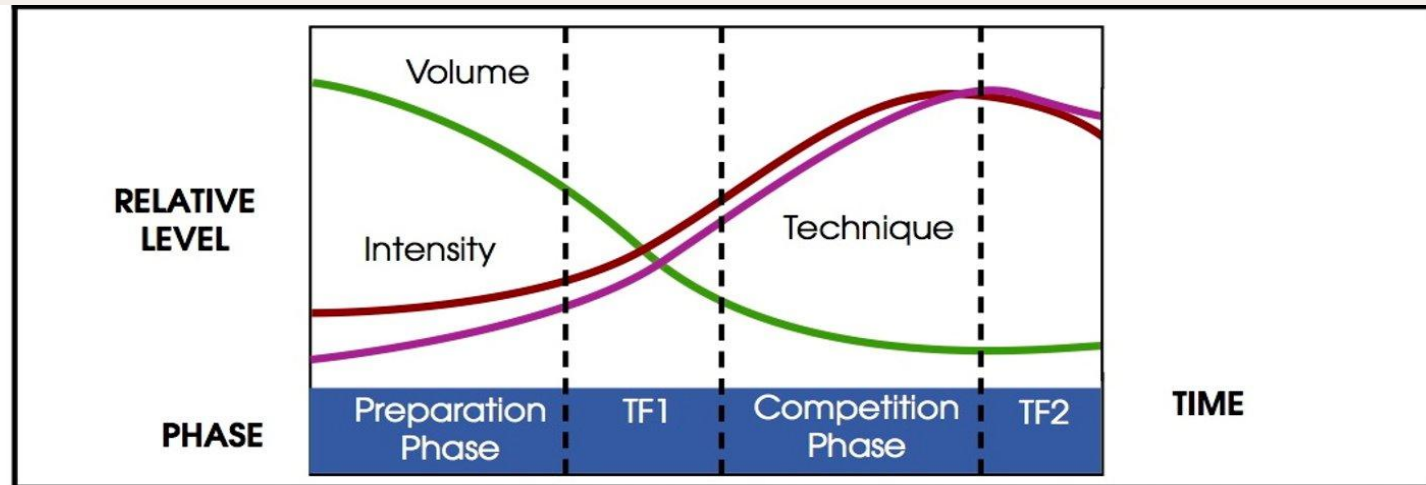
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## MATVEYEV (1956):

- Progressive increase and maximum increase of training efforts (loads and tasks).
- Undulating variation of training loads.
- Division into periods, which greatly conditions the dynamics of the loads and the training contents.
- Periodization is based on the most important competitions.
- The duration of the periods is determined by the phases of form.
- The changes of training periods are caused by the alteration of the dynamics of the loads (providing the necessary conditions for recovery and supercompensation").

# WHERE WE COME FROM...

MATVEYEV (1956):



# WHERE WE COME FROM...

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# WHERE WE COME FROM...

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## FIDELUS (1960)

He proposes a significant decrease in the volume of the load during the competitive period to achieve a more durable form.

Reduction of the general workload with respect to Matveyev's proposals.

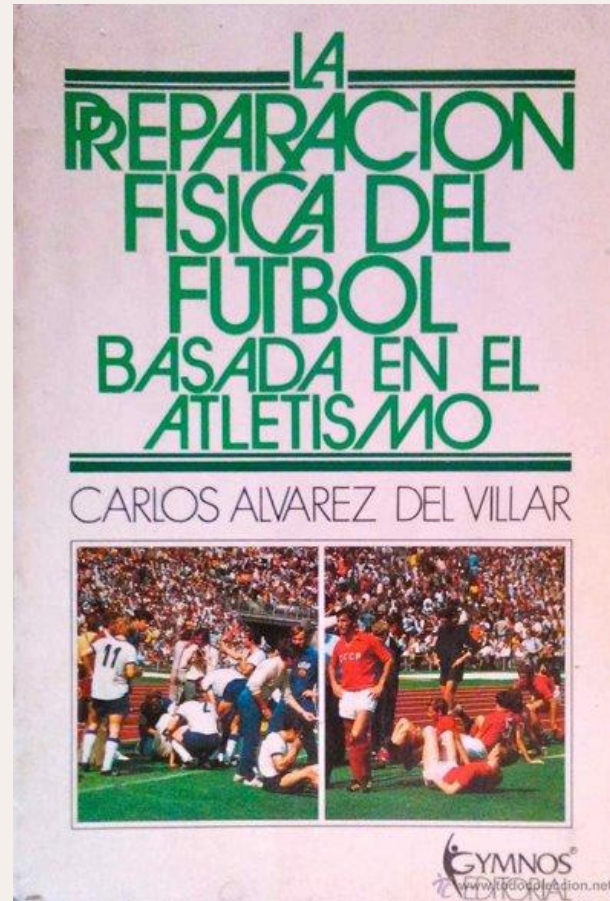
## Decrease in the volume of the load

**1969, Man steps on the moon**



# WHERE WE COME FROM...

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ÁLVAREZ DEL VILAR (AÑOS 70)

# WHERE WE COME FROM...

## Technical and tactical

### J. VERCHOSHANSKI: "BLOCK TRAINING" - (1978)

It is based on the fact that in order to perform to the maximum, it is necessary to plan not only the load, but also the technical and even tactical evolution, thus making up the total formation in blocks of all the components of sports performance.

Directed to the athletics of high technical demand and great component of explosive force.

His proposal is to work the concentrated strength "in blocks", as a precondition, to then work in another block the technical strength, to ensure the continuity of the rise and improvement of rapid force until three months later.

# WHERE WE COME FROM...

Initial block with high volume.

## J. VERCHOSHANSKI: "BLOCK TRAINING" - (1978)

Initial block with high volume for the development of strength (about two months), followed by the development of the other conditional and technical-tactical capacities, according to the demands of the modality.

Identification of the needs of the modality for the structuring of the training blocks (means and methods), making their connection feasible.

Concept of succession/interconnection (separation of incompatible works and approximation of those that complement) in combined sequences.

EDRT (Effect of Delayed Accumulation of Training).

# WHERE WE COME FROM...

Avoid neuromuscular adaptation.

## VOROBYEV "MODULAR TRAINING" (1974):

It presents a loading mode in "jumps" of both volume and intensity.

Avoid neuromuscular adaptation to constant load stimuli.

Applicable in weightlifting and sports in which the neuromuscular system can reach a stationary equilibrium.

# WHERE WE COME FROM...

## Intensity

### P. TSCHIENE "STRUCTURAL TRAINING" (1977):

He proposed a new approach to load distribution during the season, based on maintaining a high level of intensity throughout the training cycle.

It is especially applicable to sports with a high component of explosive strength and with two different phases of competitions.

Individual control of the number of competitions, to increase the intensity and for the development and maintenance of form.

Dynamics of loads in the form of small waves with an outstanding and permanent alternation between volume and intensity.

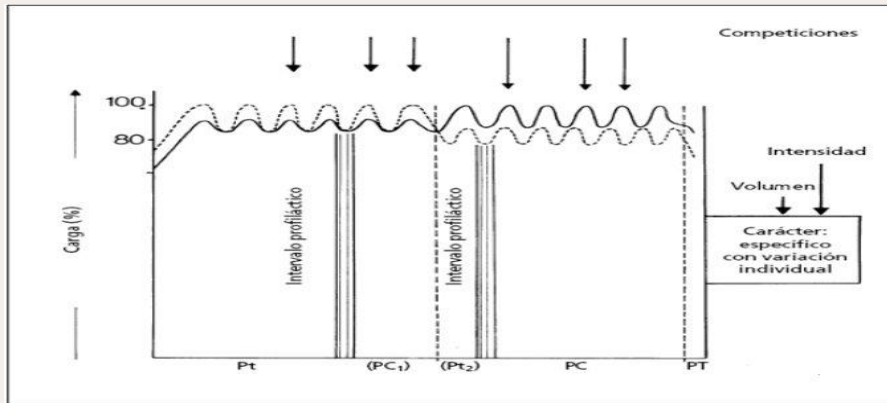
Predominance of intensity in relatively short training units, in which competition loads are emphasized.

# WHERE WE COME FROM...

## P. TSCHIENE "STRUCTURAL TRAINING" (1977):

Introduction of the "prophylactic interval" (from the preparatory period), after the specific loads and before the competitions, in order to start the competition period sufficiently rested.

It values the competition as a preponderant factor in building high performance.





# WHERE WE COME FROM...

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# WHERE WE COME FROM...

## Alternation

### MODEL ATR (ISSURIN Y KAVERIN 1986, NAVARRO 1994):

Periodicity and permutation of the preferential orientation of training. This permutation is achieved with three types of mesocycles.

accumulation (A)    transfer (T)    of realization (R).

The simultaneous training of many qualities is renounced, concentrating the training effect on a smaller number of capacities.

As a structural unit of training, the mesocycles must have a sufficiently long duration (14 to 28 days) to achieve the necessary morphological, energetic and coordination changes.

The successive development of certain capacities/objectives is sought in specialized training blocks or mesocycles.

# WHERE WE COME FROM...

## MODEL ATR (ISSURIN Y KAVERIN 1986, NAVARRO 1994):

I was looking to lay the groundwork with volume and general workload, and with special and specific work, intensity was gaining prominence.

He proposed that such periodic changes in objectives would motivate athletes.

1º semana	2º	3º	4º	5º	6º	7º	8º
							COMPETICIÓN
Ajuste	Carga	Carga	Carga	Impacto	Recuperación	Activación	Competitivo
Acumulación			Transformación			Realización	
MACROCICLO							

# WHERE WE COME FROM...

## States of performance

### TUDOR BOMPA 1984 "THE LEVEL OF HIGH SPORTS FITNESS":

Bompa considers training as a complex process that is organized and planned over several phases that occur sequentially. Through these phases of training, and especially, during the competitive phase, an athlete reaches certain states of performance. These states are called.

**Level of general sports form:** this corresponds to a very high level of conditional factors and high perfection of all the skills required for the practice of a sport modality.

**Level of high sports form:** characterized by a state of performance of the athlete close to the maximum.

**Maximum fitness level:** corresponds to the levels of maximum sporting performance, which cannot be prolonged too long, making it necessary to return quickly to the previous state.

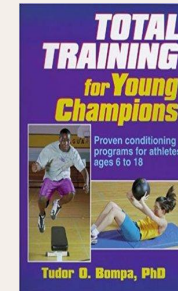
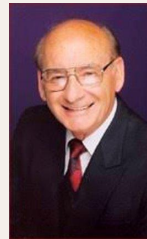
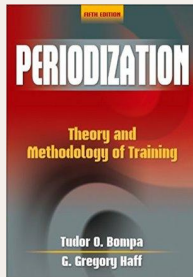
# WHERE WE COME FROM...

## Team sports.

### TUDOR BOMPA 1984 "THE LEVEL OF HIGH SPORTS FITNESS":

Tudor Bompa makes a planning proposal adapted to the reality of the long-term competitive model of team sports.

He starts from the criterion that after a general preparatory period in which the athlete reaches high, but not maximum, performance values, this level of form should be maintained throughout the season with short and punctual moments of maximum form depending on how the competition calendar is presented.





# 1984, Los Angeles Olympic Games

# WHERE WE COME FROM...

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## SEIRUL-LO VARGAS "ENTRENAMIENTO ESTRUCTURADO" (1970):

It presents a model for sports with a long competitive period.

In it, the athlete is in a superior biological state, characterized by a very fast adaptability to training loads, as well as a good recovery rate. It is a state at the highest level in which the levels of technical execution and tactical resolution are optimal.

Its main objective was to achieve fitness during the eight/nine months that the competitive periods last.

It relates the conditional components with the psychomotor components of technical resolution, even with the intellectual components of tactical content.

It eliminates the general workload during the preparatory period.

# WHERE WE COME FROM...

## SEIRUL-LO VARGAS "ENTRENAMIENTO ESTRUCTURADO" (1970):

The acquisition of the state of "optimal form" is temporary, it is achieved at an individual level when in a situation of high form, a synergy of loads of specific content that provoke it are made to coincide in the athlete.

The weekly load design in a "micro-adaptation" system is adequate if it is in accordance with the laws of overcompensation and synergies. This should be different as the competition fluctuates within the weekly cycle.

The concentrated work of special load is the one that provides throughout the entire period of competitions the maintenance of the athlete on a platform of high form and adaptation to this load inertia must have already been achieved in the preparatory period.

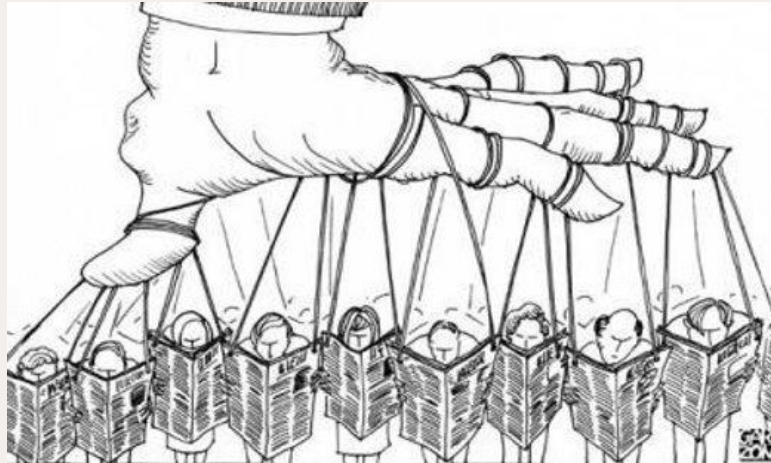




# WHERE WE COME FROM...

## THE PAST:

OF BEHAVIORAL AND MECHANISTIC THEORIES...



# FROM SIMPLE TO **COMPLEX** ...

TEAM SPORTS **TRAINED AS INDIVIDUAL SPORTS**

CAUSE-EFFECT OPERATIONAL LINEARITY

**HS** AS A CONVENTIONAL MACHINE

**QUANTITATIVE** AS RESULT ASSESSMENT

DECOMPOSITION OF THE WHOLE INTO **PARTS**

**AUTOMATION** OF PHENOMENA

## THE PAST:



# FROM SIMPLE TO **COMPLEX** ...

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## XX CENTURY...

COACHES OF THE 20TH CENTURY + **INDIVIDUAL TALENT**.

**GRASSROOTS SPORTS** (HATEROPHILIA, ATHLETICS, GYMNASTICS...).

STRENGTH IMPROVEMENT

SPEED IMPROVEMENT

IMPROVEMENT OF ENDURANCE

METHODOLOGIES OF TEACHING AND LEARNING OF ACTIONS SUCH AS JUMPS, THROWS...

THE RULES



# FROM SIMPLE TO **COMPLEX** ...

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SIMPLIFICATION PARADIGM, MORIN (1982):

MULTIDISCIPLINARY TRAINING MODEL

PARTIAL AND UNCONNECTED ASPECTS OF.

METHODOLOGY

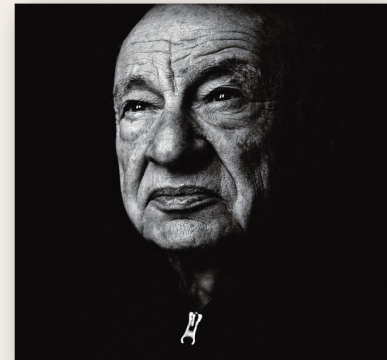
BIOMECHANICS

PSYCHOLOGY

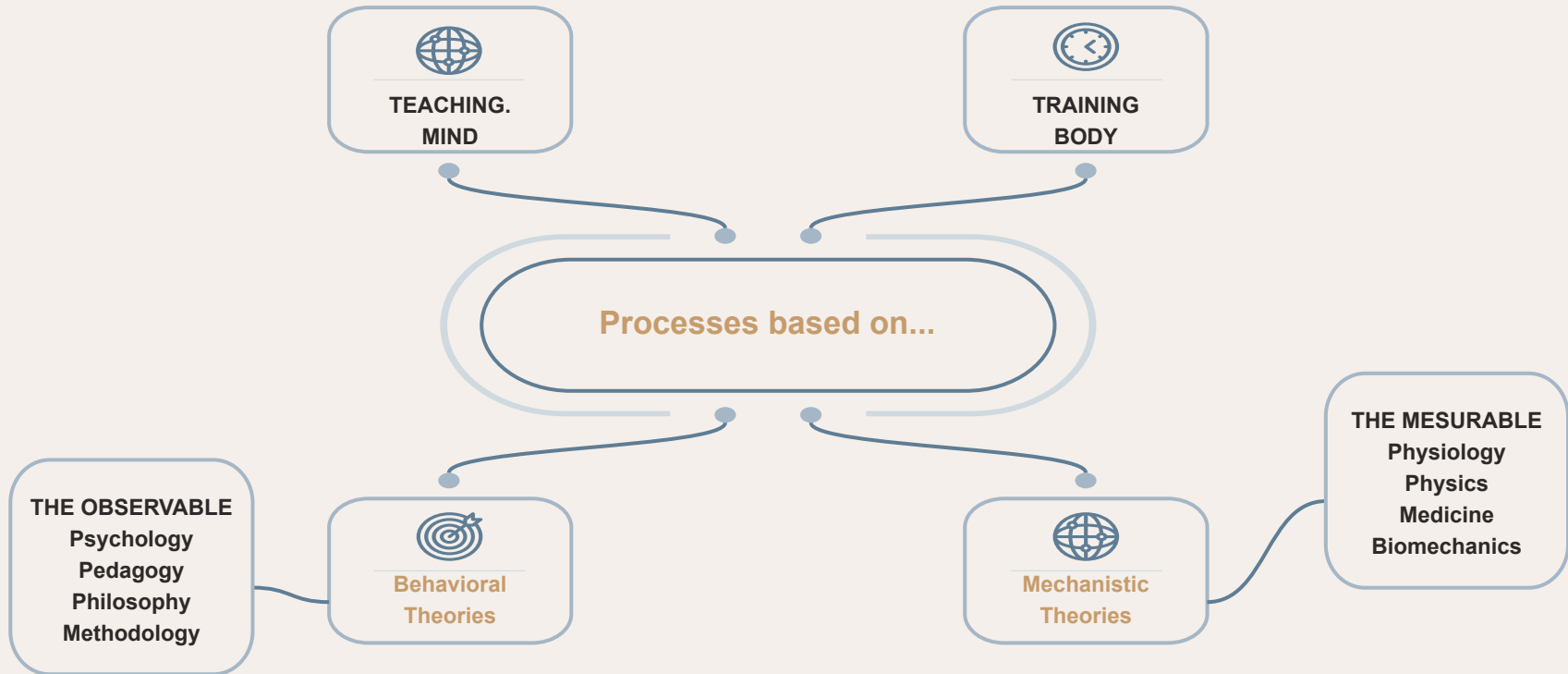
...

- PARTICULAR ANALYSIS OF EACH SCIENCE  
ON THE SPORT PHENOMENON (ISOLATED  
FROM THE CONTEXT).

**THE PAST:**



# FROM SIMPLE TO COMPLEX ...



Adapted from Mastercede, 2017

A black and white portrait of Carl Jung, an elderly man with white hair, wearing round glasses and a mustache. He is looking slightly to the right of the camera with a thoughtful expression. The image is partially obscured by a dark diagonal overlay on the right side.

# LAWS OF THE SIMPLIFICATION PARADIGM...

Simple things are always the most  
difficult.

— *Carl Jung* —

**MORE OF THE GOOD IS  
ALWAYS BETTER...**



# THE QUANTITATIVE PRECEDES THE QUALITATIVE...







**IT IS NECESSARY TO BUILD A BROAD  
QUANTITATIVE BASE OF QUALITIES IN ORDER  
TO ACHIEVE QUALITATIVE VALUES ...**

# THE PRESENT:



EMERGENCIES

UNCERTAINTY

VARIABILITY

SELF-ORGANIZATION

no MONOCAUSAL CRITERIA  
CAUSALITY = REDUCTIONISM

TURBULENCE

SIMPLIFICATION PARADIGM

Reproduction of models by CONTRASTED EVOLUTION

The model is reproduced according to the evolution.  
 Of the regulations  
 The requirements of the competition  
 Of the coach's knowledge  
 Social and economic valuation of sport  
 Technology and research applied to sport

External, not related to the athlete

Construction of automodels by DIFFERENTIATED STRUCTURING

PARADIGM OF COMPLEXITY

Internal, specific to the athlete

The self-model is built by:

- The impact that the regulation has on the establishment of the technical or tactical skills of the athlete.
- The impact that the competition has on the player's psychophysiology.
- The acquisition of new knowledge of the athlete about the game and training.
- The formation of the athlete's social self-image.
- The technology and means of research applied to the knowledge of the athlete.

Adapted from Mastercede, 2017

# NEW PARADIGM

It makes us modify our thinking, ideas and values about the human-athlete as a living being that seeks constant dynamic interaction between:

## INDIVIDUAL SPORTS

RATIONAL  
ANALYTICAL  
REDUCTIONIST  
LINEAR  
COMPETITIVE  
QUANTITATIVE

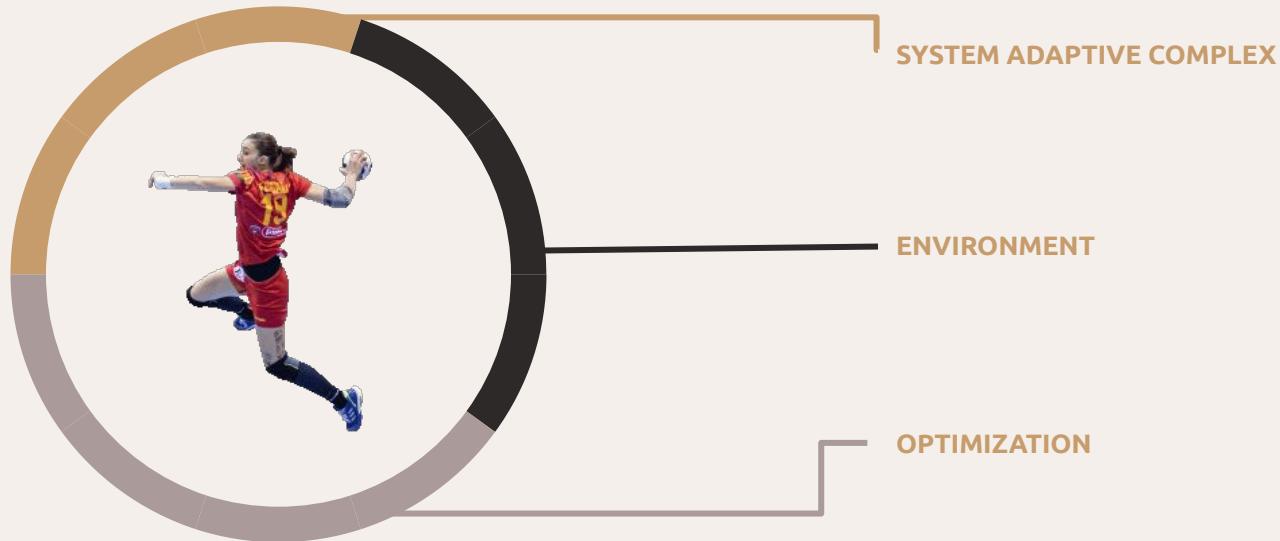
## TEAM SPORT

INTUITIVE  
SYNTHETIC  
HOLISTIC  
NON-LINEAR  
COOPERATIVE  
QUALITATIVE



# WHERE WE COME FROM...

## FROM SIMPLE TO COMPLEX ...



the human athlete



## TRADITIONAL Training (TT)?

- It focuses on the needs, study and modeling of the sport.
- In his proposals the player has to adapt to the needs of the competition.



## STRUCTURED TRAINING (ST)?

- Its objective, foundation and measure is the Human Being (HB) who does sport.
- Its proposals are the optimization of the HB that grants high levels of "interaction" in the competition of that Game.





## TRADITIONAL Training (TT)?

You have to train first the basic, generic, to then make it specific!!!!

## TRADITIONAL Training (TT)?

First get to make an athlete and then make him a player!!!!



## TRADITIONAL Training (TT)?

Repetition is the foundation of performance improvement!!!!

What goes well should not be touched!!!!



## TRADITIONAL Training (TT)?

If a training task is good for the sport, it is equally good for all players!





## TRADITIONAL Training (TT)

In the TT the contents and load elements are good as they are generally fixed by:

- The moment of the season.
- The needs that the coaches intuit will be precise for "this" game.
- The interpretation and philosophy that a certain coach has of the game.
- And above all, the positive experience that the coach has had in this regard.
- And other circumstantial factors such as:
  - The classification.
  - The latest results.
  - The weather.
  - The number of players...

# Reflection on Modern Training



"Beyond the dominant conceptual structure: toward a holistic view."

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ABOUT US

2

DATA ANALYSIS

3

STRUCTURED TRAINING



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## STRUCTURED TRAINING

The approach to sports training is based on the optimization of the different structures and systems of the athlete, recognizing the dynamic interconnection between them. This approach seeks to develop holistic and ecological practices centered on the athlete, considering the interaction and cooperation between the different areas of human performance to improve efficiency and execution in sports practice.

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# STRUCTURED TRAINING

## Training in Team Sports: Structured Training in the FCB

J. R. Tarragó<sup>1</sup>, Marcel·lí Massafret-Marimón<sup>2</sup>,  
Francisco Seirul-lo<sup>1</sup> and Francesc Cos<sup>2,3\*</sup>

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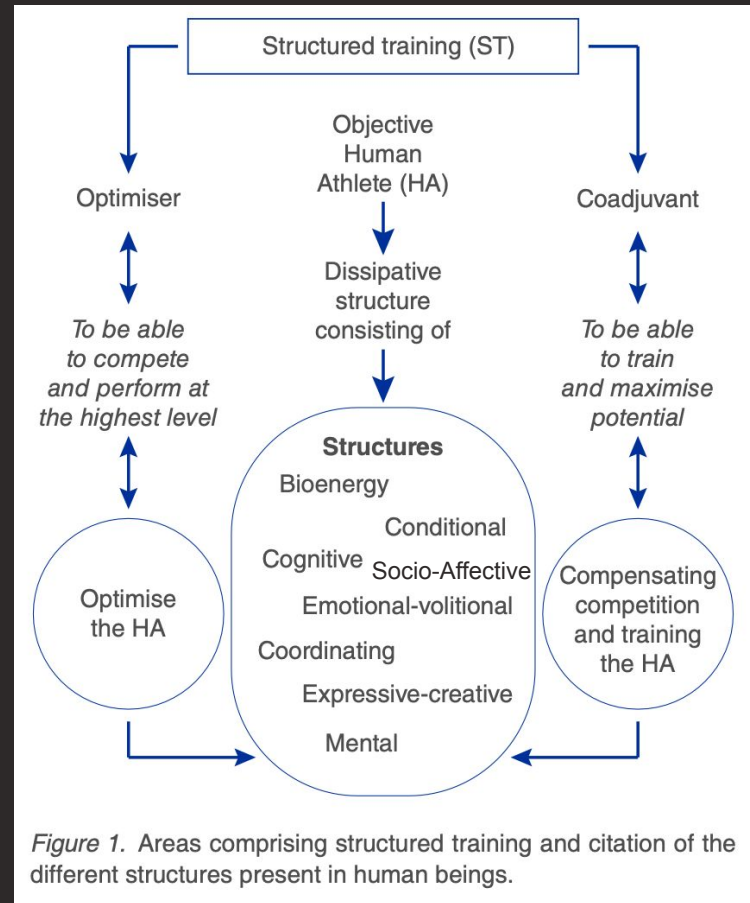
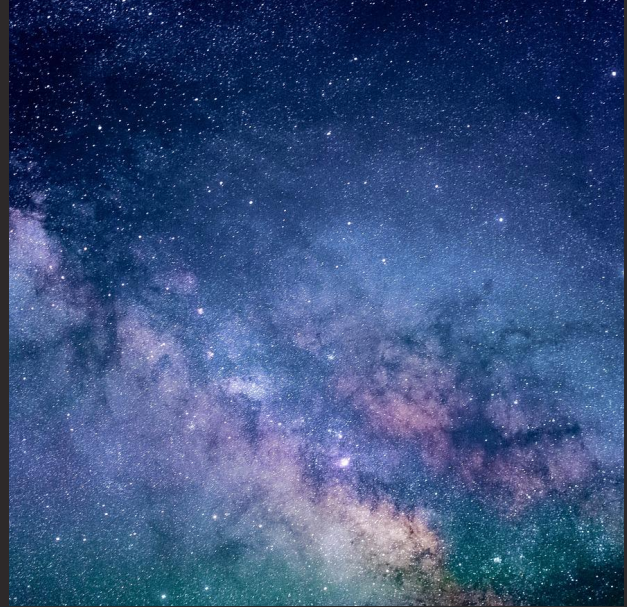


Figure 1. Areas comprising structured training and citation of the different structures present in human beings.



## Introduction to Theory

"The human being as a complex dynamic system."



## Structured Training (ST)

"Sports methodology based on the integral understanding of the Human Being Sportsman (SHD). Focused on collective aspirations and methodical preparation."





# THANKS!

Does anyone have any questions?

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