Prof. Elena Peteva STRUCTURE OF THE HUMAN BODY

The likeness is in the skeletal structure. The skeleton determines the body's proportions. It sets the types of movements and the outer appearance of the body. Fundamentals of capturing the likeness are:

- <u>Finding the main axis lines of the body</u> (structural angles that bisect the main forms and define the basic angles of the whole pose) and the relationships between them.
- Securing proper body proportions (through sighting and measuring).
- Starting the drawing from the inside out from the skeletal axis and proportions and then, building the forms of the body around them.
- Without this structural and proportional likeness the body would be like a rubber dummy.
- The skeletal structure: Skull, Spine, Ribcage, Pelvis, Abdominal Plane and Limbs
- The skeletal structure is made-up of angles and curves that are harmoniously connected. There are no absolute vertically-oriented forms in the body. Everything relates to everything else at an angle, thus making the structure sock-absorbent and sounder (if we were constructed of straight angles the slightest hit could easily cause a fracture). Essentially, the body is a symmetrical sequence of opposing angles (forms), which take turns, and create a dynamic balance. Analyze the angles' relationships and look for the rhythm in the figure.
- <u>Contrapposto</u> and <u>Line of Balance</u>: The same principle is true to the positions the body can assume. The structure defines the function and vise-verse. One angle counters another to achieve the balance and distribution of weight necessary for the body not to fall over. Example: <u>Contrapposto</u> the movement of the large forms of the body against each other in a figure standing with most of its weight on one foot. The forms "respond" to each others' position in such a way that balance is achieved. Observe the differences between the structural angles of the ribcage & shoulders, the pelvis, and the legs. <u>Line of Balance</u> (the center of weight in the body): In an up-right symmetrical standing figure seen in profile the line of balance (perfect vertical) is at the ear front-to-mid of the neck back of waist front of knee. In an up-right symmetrical standing figure seen in frontal view in contrapposto the line of balance (perfect vertical) is at the center of the pelvis the inner side of the foot of the weight-bearing leg.
- Look for the <u>main forms and landmarks in the body</u> and how they relate to each other.

 <u>Main forms:</u> Spine or "frontal spine"(pit of the neck sternum navel pubis), ribcage, pelvis, head and limbs.
 - Main landmarks: Shoulder line, shoulder blades (*scapulae*), pit of the neck, nipple line, navel, pelvis line (*iliac crest* or dimples on the back), center of pubis etc. Generally, the pubis is the mid-point in the total height of an upright standing figure (in the same figure seen from the back the mid-point would be the beginning of the furrow of the buttocks). Generally, there is one head measurement from the bottom of the chin to the nipple line (in a male model) to the navel to the bottom of the pubis, etc. Generally, in relaxed arms alongside the figure the elbows line up with the belly button and the wrists with the pubis.
- The body is made up of a series of convex forms (positive curves). The appearance of a concave form (negative curve) is created by the meeting point of two positive curves/forms. For example the neck to shoulder curve seems concave but it is created by two convex forms the sternocleidomastoid (neck) and the trapezius (back).
- Find the symmetrical curves in the body and the rhythm of curves.
- Observe the overlaps and the interior lines, distances, angles, curves and forms.
- Understand the interior structure in order to accurately build the exterior forms. The lines that describe the exterior are only created by what is inside the inner structure affects the outer appearance.
- Everything is relative to everything else. Always sight and compare the relationships.
- Recommended Books:
- "Artistic Anatomy" by Hale-Richer and "Atlas of Human Anatomy for the Artist", by Stephen Peck