From architectural to computerized analysis....from 1971 to 2021.

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Since the first publication of Jean DELAIRE in 1971: "Architectural and structural teleradiographic analysis of the face " and a second article published in 1978: "Architectural and structural craniofacial analysis (lateral view). Theoretical principles. Some example of its use in maxillofacial surgery ", architectural analysis has profoundly evolved in its conception and layout following the work of Professor Delaire and his colleagues.

Initially performed manually, its elaboration consists of two steps, the first structural analysis - consists of tracing all the hard and soft craniofacial structures and searching for their anomalies, the second - architectural analysis - consists of constructing from anatomical or constructed points, connected by lines, a tracing showing all the relations between the different craniofacial constituents. This tracing makes it possible to establish a diagnosis of skeletal and dental anomalies and to develop a treatment plan.

In 1994, Delaire, Salagnac and Notari published: "Diagnosis of dento-maxillo-facial dysmorphoses. Apport de l'analyse architecturale informatisée" (Diagnosis of dento-maxillo-facial dysmorphoses. Contribution of computerized architectural analysis), which accompanied the first computerized version of the analysis, marketed under the name "Cépharch", then "Céphalo 2000".

Over time, the analysis was enriched with new contributions; a frontal analysis was added to the profile analysis, later completed by axial and panoramic analyses. Different versions - orthognathic, topographic, Top 12 - are now available in 2021 under the name "Delaire evolutions".

The evolution of this analysis - like the course of history - is marked by three essential factors: the evolution of concepts, the evolution of technologies, and the spirit of synthesis of a great man.

Delaire J.: Vers une analyse téléradiographique architecturale et structurale de la face. Orthod. Franç., 1971; 42 : 411-427.

Delaire J.: L'analyse architecturale et structurale cranio-faciale (de profil). Principes théoriques. Quelques exemples d'emploi en chirurgie maxillo-faciale. Rev. Stom., 1978, 79 : 1-33

Delaire J., Salagnac J.M., Notari J.: Diagnostic des dysmorphoses dento-maxillofaciales. Apport de l'analyse architecturale informatisée. A.O.S. 1994, 187: 477-511

Architectural and structural teleradiographic analysis of the face. Delaire J. Orthod Fr. 1971;42:411-27

Architectural and structural craniofacial analysis (lateral view). Theoretical principles. Some example of its use in maxillofacial surgery. Delaire J. Rev Stomatol Chir Maxillofac. 1978;79(1):1-33.

Delaire J., Salagnac J.M., Notari J.: Diagnostic des dysmorphoses dento-maxillofaciales. Apport de l'analyse architecturale informatisée. A.O.S. 1994, 187: 477-511