```
Format[Σ_{b_B}[σ_, PQ[C_, q_]]] := Module[{ηs},
  ηs = η_# & /@ Join @@ b;
  Column[{TraditionalForm@σ,
    TableForm[Join[
      Prepend[""] /@ Table[TraditionalForm@∂_c r],
        {r, C}, {c, ηs}],
      {Prepend[""][
        Join @@
          (b /. {l_, m___, r_} :>
            {DisplayForm@RowBox[{"(", l}],
             m, DisplayForm@RowBox[{r, ")"}]}) /.
          i_Integer :> η_i ]},
      MapThread[Prepend,
       {Table[TraditionalForm@∂_{r,c} q], {r, ηs*},
         {c, ηs}], ηs*}]
     ], TableAlignments → Center]
   }, Center] ];
```