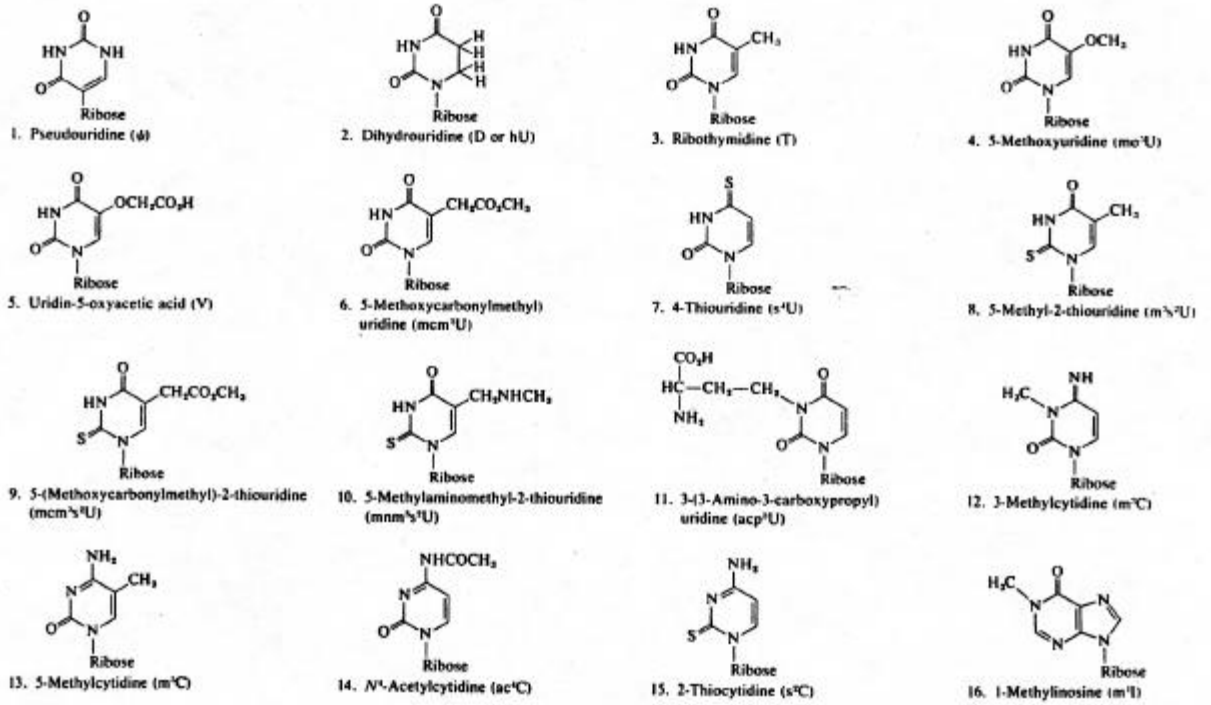
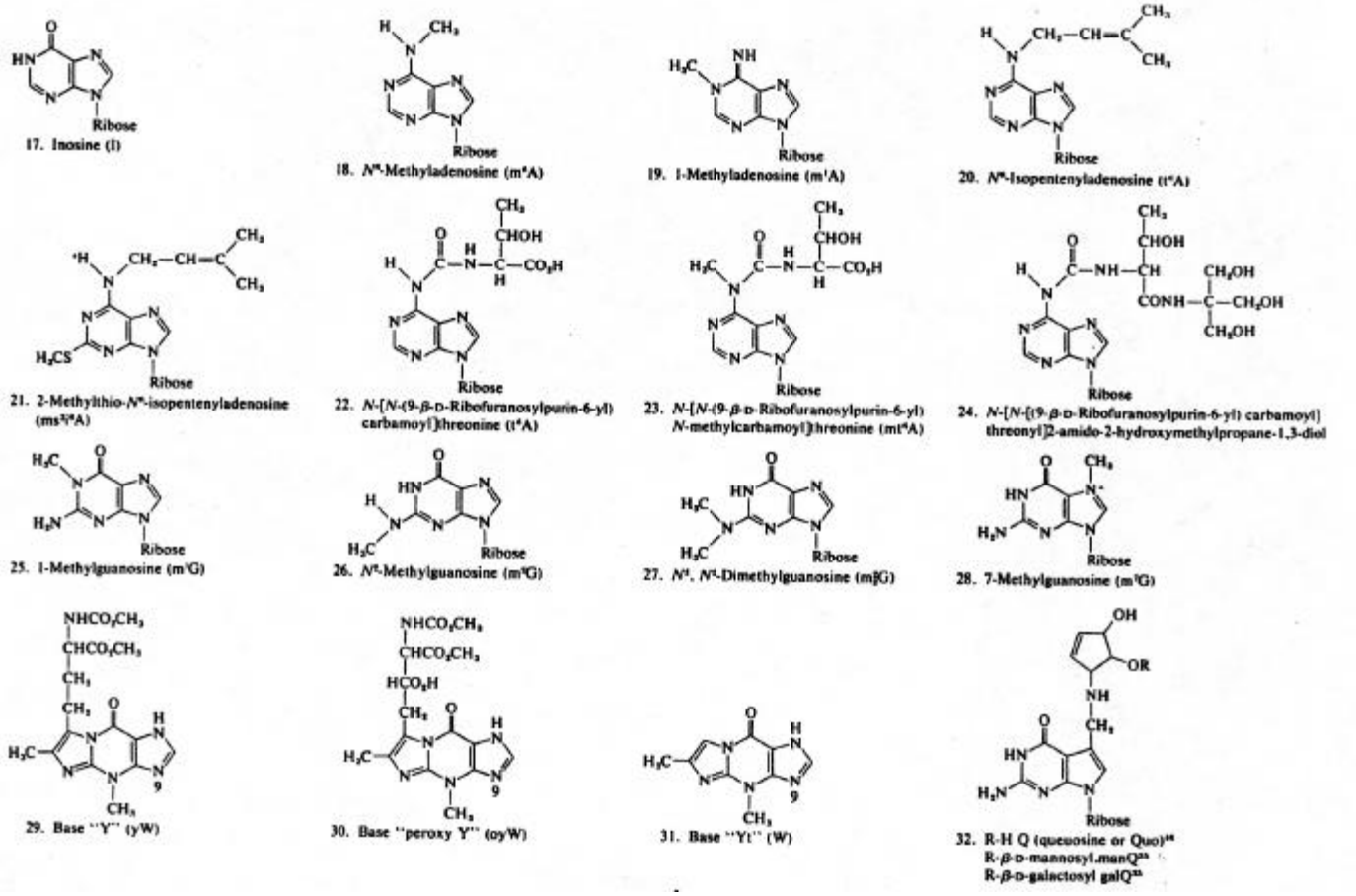


In the case of bases "Y", "Yt", and "peroxy Y" the ribosyl group is presumably attached to N-9.

Figure 7-6. Chemical structures of "rare" or "minor" nucleosides and bases found in tRNAs. From (667).



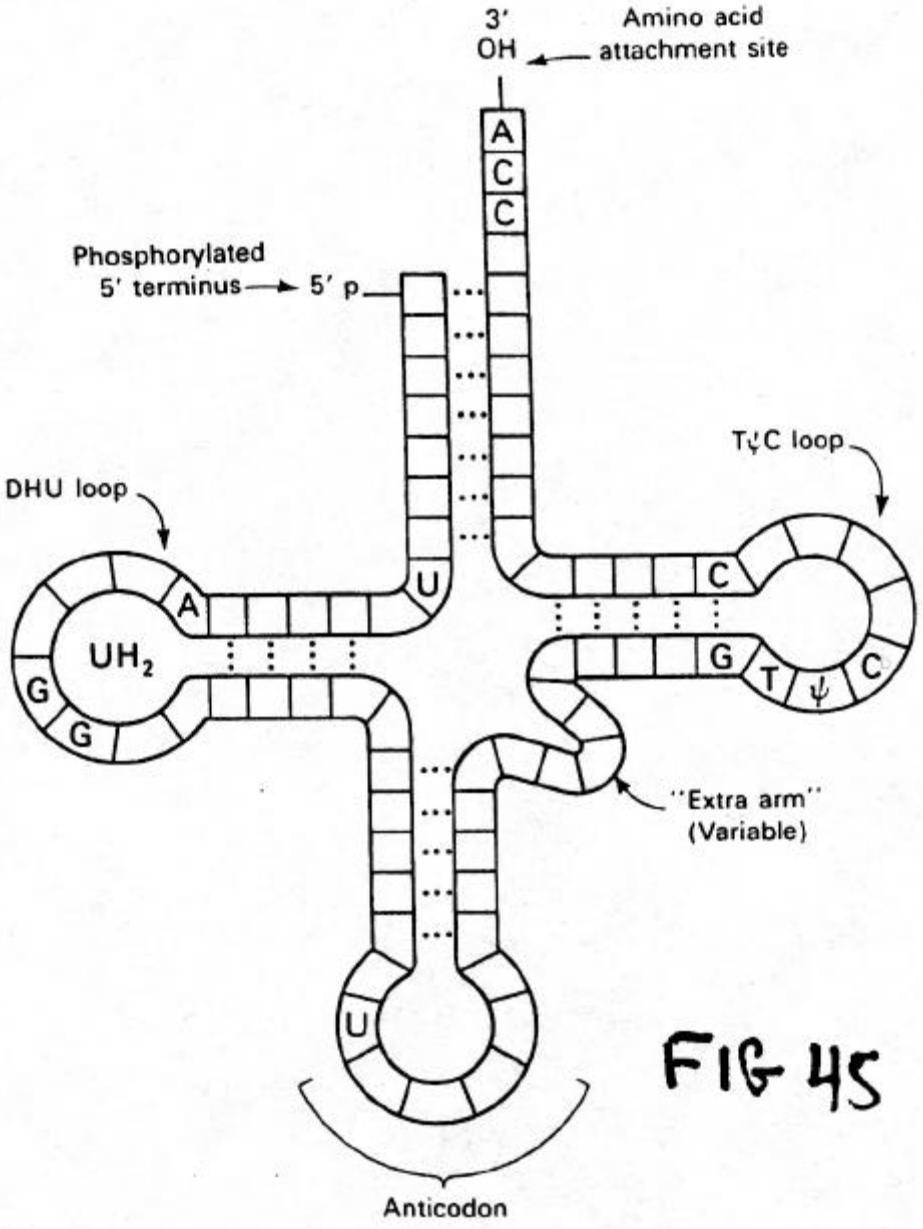

3'
OH
Amino acid
attachment site
A
C
C
Phosphorylated
5' terminus
5' p
DHU loop
TψC loop
A
U
C
UH2
G
G
G
T
ψ
C
"Extra arm"
(Variable)
U
Anticodon

FIG 45

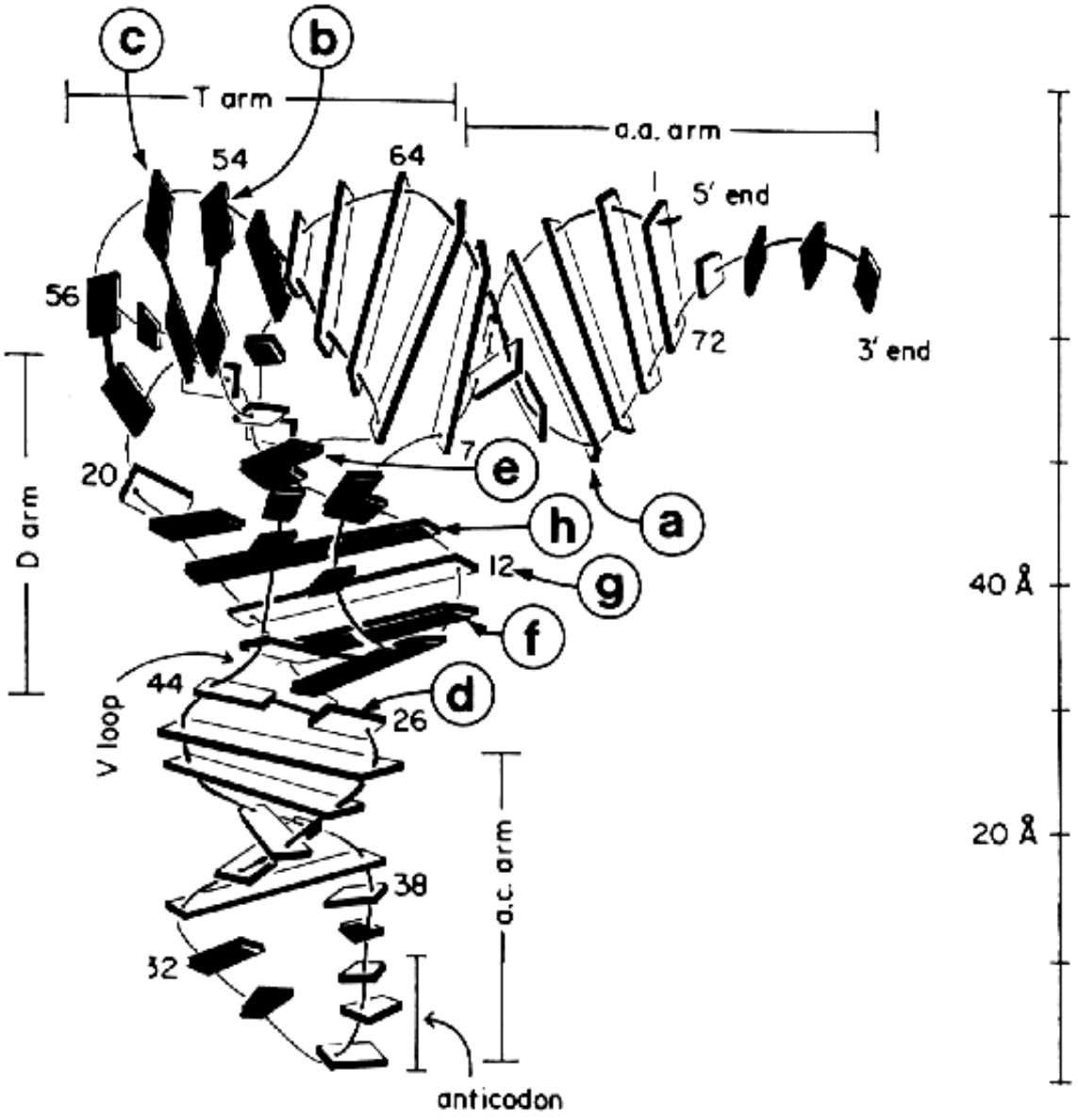
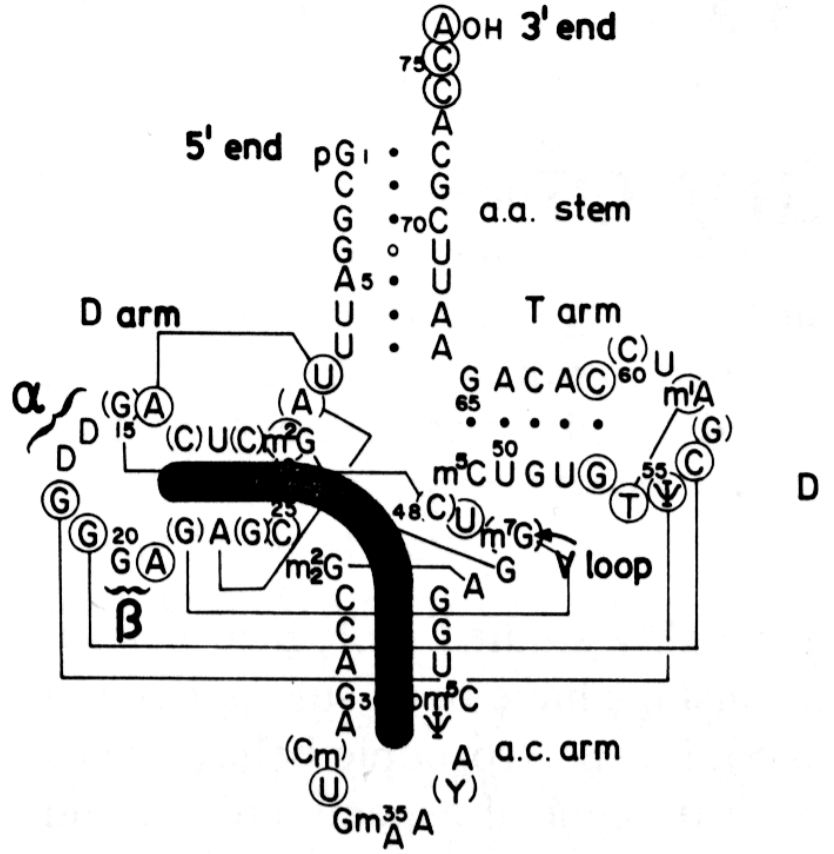
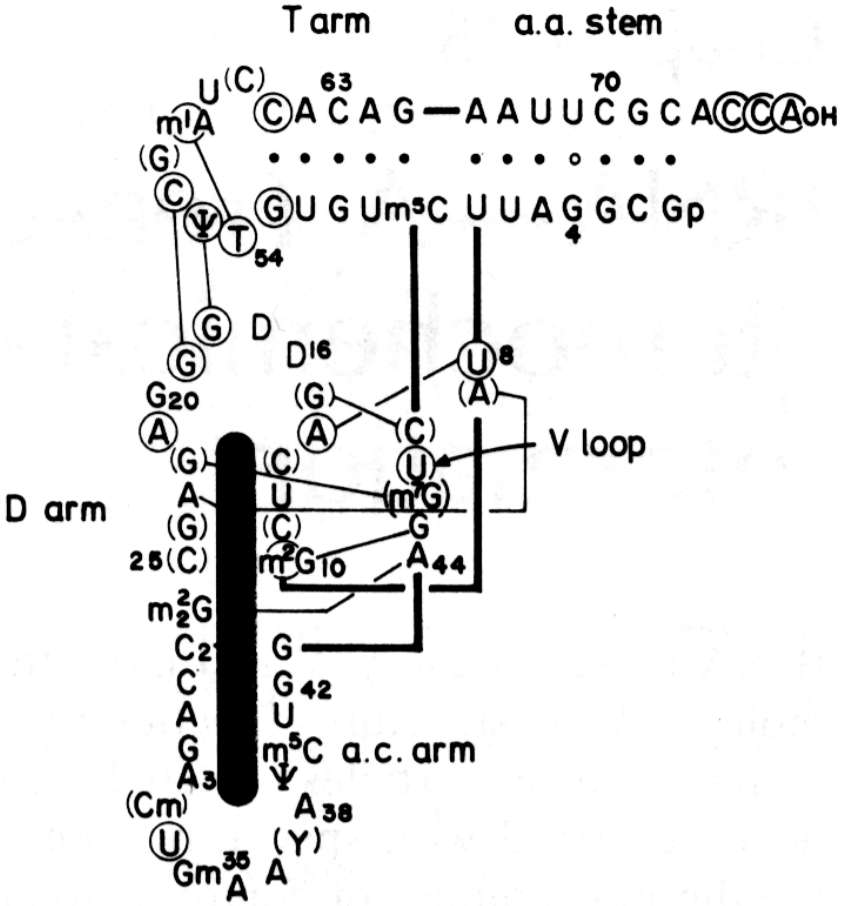


Figure 15-3 Illustration of base-pairing and stacking interactions in yeast $tRNA^{Phe}$.


3' end
5' end
a.a. stem
D arm
T arm
V loop
a.c. arm
D


T arm
a.a. stem
D arm
V loop
a.c. arm
D

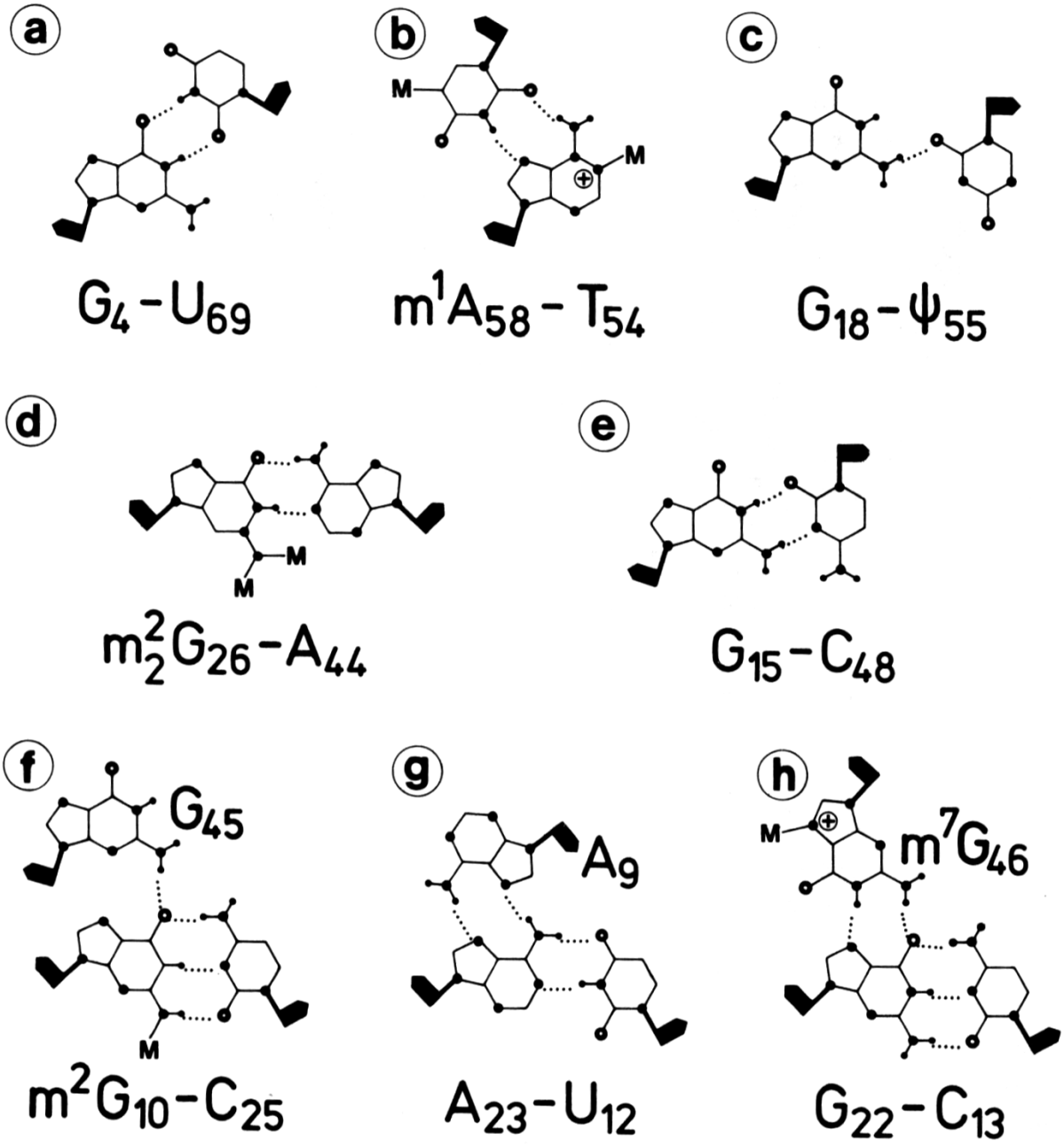


Figure 15-4 Unusual base–base interactions found in yeast $tRNA^{Phe}$. For their positions in the tertiary structure, see Figure 15-3. All other base-pairs are of the Watson–Crick type. Flags at glycosyl links indicate backbone orientations. They are parallel in **c, e, f**(m^2G_{10}, G_{45}), **g**(A_9, A_{23}), **h**(C_{13}, m^7G_{46}) and antiparallel otherwise. All of the dimeric base–base interactions are already contained in Figure 6-1.

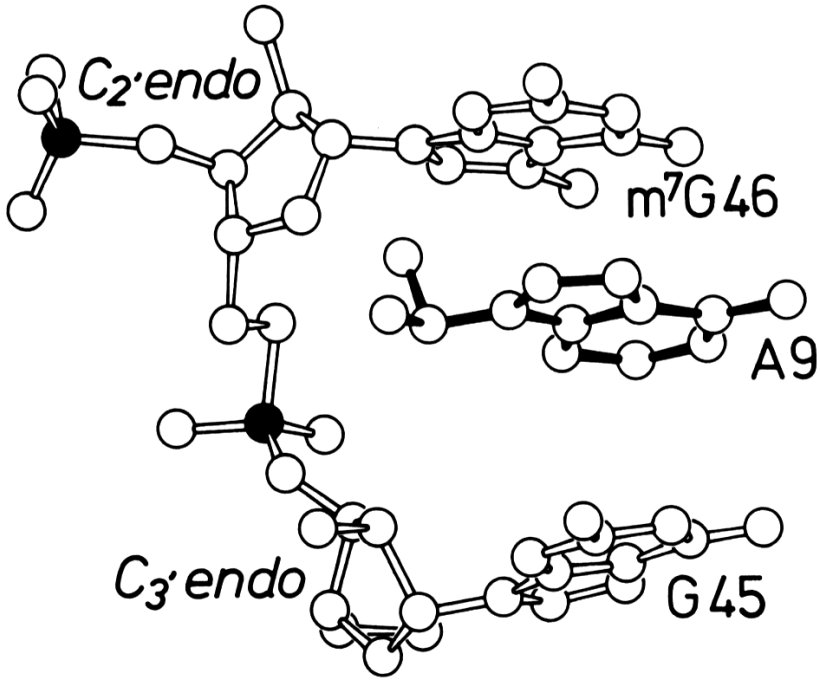


Figure 15-5. Intercalation of adenine A_9 (color) between guanines m^7G_{46} and G_{45}. This special kind of stacking is associated with separation of the two guanine bases by 3.4 Å to allow insertion of adenine, the separation being accomplished by a change in ribose puckering of m^7G_{46} from the preferred $C_{3'}$-*endo* to $C_{2'}$-*endo*. Phosphorus atoms are indicated by shading. Redrawn from (1054).